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Recommended Citation

Shi-Ling Hsu, *The Accidental Postmodernists: A New Era of Skepticism in Environmental Law*, 39 VT. L. REV. 27 (2014),
Available at: <https://ir.law.fsu.edu/articles/492>

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THE ACCIDENTAL POSTMODERNISTS: A NEW ERA OF SKEPTICISM IN ENVIRONMENTAL POLICY

Shi-Ling Hsu^{*}

INTRODUCTION.....	27
I. WHAT IS POSTMODERNISM?	33
II. POSTMODERNIST OBJECTIONS IN ENVIRONMENTAL LAWMAKING	37
A. The Postmodernist Objection to Cost-Benefit Analysis	39
1. CBA is Manipulable	41
2. CBA is Structurally Biased	44
3. Do the Environmental Postmodernists Have a Point About CBA?	49
B. The Postmodernist Challenge to Science in Environmental Lawmaking	57
1. Funding Science to Bend It	60
2. Science Wielding Power	62
3. Science as a Social Construct.....	66
C. Environmental Postmodernism from Climate Skeptics	68
1. Funding Climate Science to Bend It.....	70
2. Climate Scientists Wielding Power.....	71
3. Climate Science as a Social Construct	74
III. THE POSTMODERNIST CONDITION IN ENVIRONMENTAL LAW	76
A. The Postmodernist Problem with Environmental Postmodernism	77
B. The Relativity of Wrong.....	80
C. Environmental Postmodernism Reformed?	81
CONCLUSION	85

INTRODUCTION

Environmental policy conflicts used to be predictable. Environmental advocacy groups battled with regulated industries in courthouses and legislatures (federal and state), and governments were stuck in the middle.¹ But the emergence of complex problems, such as climate change, and of

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1. See, e.g., JOHN OPIE, NATURE'S NATION: AN ENVIRONMENTAL HISTORY OF THE UNITED STATES 448 (1998) ("Too often, it appeared, EPA's bureaucracy moved toward regulatory gridlock as it tried to appease the conflicting interests of environmentalists, industry, technological viability, and scientific certainty.").

mixed-blessing technologies, such as hydraulic fracturing and genetic engineering, combined with the two decades of congressional inaction on federal environmental legislation, has created new schisms in environmental law and policy. New law- and policy-making conflicts are pitting traditional allies against each other. The Environmental Defense Fund (EDF), one of the oldest environmental advocacy organizations in the world, is now scorned by upstart environmental groups for often breaking policy ranks.² Harvard Law Professor Cass Sunstein, who served as President Obama's head of the Office of Information and Regulatory Affairs, left government service to a chorus of praise from political conservatives,³ while being roundly criticized by politically liberal organizations⁴ and also by his former student, fellow Democrat and Obama

2. See, e.g., CHRISTINE MACDONALD, GREEN, INC.: AN ENVIRONMENTAL INSIDER REVEALS HOW A GOOD CAUSE HAS GONE BAD xv-xvi (2008) ("ED[F] likes to call itself nature's lawyer, but ED[F]'s longtime president Fred Krupp is seen more as corporate America's most effective mediator on environmental questions [EDF] has conducted 'projects' aimed at greening such companies as Federal Express, S. C. Johnson, and DuPont that critics say have allowed those companies to greenwash their images There is plenty of evidence, however, that the companies are getting more out of the current setup than the endangered species."); see also Steve Horn, *New Shill Gas Study Published by SUNY Buffalo Institute With Heavy Industry Ties*, DESMOGBLOG (May 17, 2012, 14:19), <http://www.desmogblog.com/new-shill-gas-study-published-suny-buffalo-institute-heavy-industry-ties> (citations omitted) ("Digging deeper, the Buffalo study also had a Peer Review panel. That panel had five reviewers, four of five of which have ties to the oil and gas industry: . . . Scott Anderson is the senior policy advisor with the [EDF's] Energy Program. As covered previously on DeSmogBlog, Anderson formerly worked in the oil and gas industry and is a former executive vice president and general counsel for the Texas Independent Producers and Royalty Owners Association. He is also a member of the Interstate Oil and Gas Compact Commission, which opposes extending the federal Safe Drinking Water Act to hydraulic fracturing."). More recently, EDF supported a toxics regulation reform bill championed by the late Senator Frank Lautenberg (D-N.J.) and Senator David Vitter (R-La.), but was strongly opposed by other environmental organizations and a number of environmental law professors. Jeremy P. Jacobs, *Advocates Rally Opposition to TSCA Reform Compromise Bill*, E&E DAILY (June 12, 2013), <http://www.eenews.net/eedaily/2013/06/12/stories/1059982693>.

3. Sunstein's admirers include the conservative U.S. Chamber of Commerce. John McArdle & Emily Yehle, *Controversial Regulatory Chief Leaves Administration*, GREENWIRE (Aug. 3, 2012), <http://www.eenews.net/stories/1059968392>. They also include Congressman Darrell Issa, the California Republican who has made it his calling to lambaste the Obama Administration. See, e.g., *id.* ("House Oversight and Government Reform Chairman Darrell Issa (R-Calif.), who has repeatedly criticized Obama for what he sees as over-regulation and made it a centerpiece of his panel's agenda, singled out Sunstein as enlightened."); Mark Leibovich, *Republican Emerges as Obama's Annoyer-in-Chief*, N.Y. TIMES (July 6, 2010), http://www.nytimes.com/2010/07/07/us/politics/07issa.html?ref=darrellissa&_r=0 ("You can call me a pain," Mr. Issa said. "I'll accept that as a compliment.").

4. See, e.g., McArdle & Yehle, *supra* note 3 ("[B]oth Public Citizen and the Center for Progressive Reform came close to celebrating Sunstein's departure, calling it an 'opportunity' for the Obama administration to drop the regulatory-reform agenda."); Rena Steinzor, *Fiddling While Rome Burns 64 Dead, 741 Sick, and Cass Sunstein's Dangerous Love Affair With Cost-Benefit Analysis*, CTR. FOR PROGRESSIVE REFORM BLOG (Dec. 10, 2013), <http://progressivereform.org/CPRBlog.cfm?idBlog=DDAD4C84-DA1D-D073-EFF093E52BB4972C> ("So, for example, in their number-crunching frenzy, Sunstein and his fellow cost-benefit enthusiasts value the loss of an IQ point because a child is exposed

Administration official, Georgetown law professor Lisa Heinzerling.⁵ While partisan politics have reinforced some traditional political divides, these new disagreements seem to represent the drawing of new fault lines. And the rhetoric has been so heated that these arguments among former allies have at times bordered on the fratricidal.⁶ What is going on?

This Article argues that the nature of environmental policy conflict is changing and that a new kind of opposition movement is forming. Congressional gridlock on environmental policy⁷ has not stalled environmental lawmaking but has instead pushed it into the administrative realm. This change in venue has produced new reform proposals, along with new suspicions. Reformers have sought to inject more quantitative indices into lawmaking, and the new opposition has voiced doubts about whether these quantitative measures represent more objectivity or false objectivity. At the same time, the complexity of some new environmental

to lead paint or lead in drinking water at somewhere between \$1,500-\$8,400. This number is then discounted at the rate of seven percent annually to reflect that although children might be poisoned today, the damage won't affect their earning power until they reach the age of majority. Never mind the affliction of going through all of one's life with a brain diminished from what it should be In the end, cost-benefit analysis seems best suited for satisfying the intellectual musings of someone safely ensconced in an Ivory Tower, high above and far removed from the very real dangers that agencies such as the FDA are tasked with addressing. We'd all be a lot safer if agencies were able to go about their business unfettered by the fruitless search for more information geared to support various dogmas.").

5. See Lisa Heinzerling, *Inside EPA A Former Insider's Reflections on the Relationship Between the Obama EPA and the Obama White House*, 31 PACE ENVTL. L. REV. 325, 325-26 (2013) (criticizing the Office of Information and Regulatory Affairs' review of the EPA's regulatory output).

6. See, e.g., Thomas O. McGarity, *Professor Sunstein's Fuzzy Math*, 90 GEO. L.J. 2341, 2366 (2002) ("At the end of the day, one is left with a pressing need to know why a person with Professor Sunstein's obvious intelligence and even disposition would conclude that all of this occasionally comprehensible, but frequently preposterous and always manipulable number spinning, could possibly lead to better decisionmaking in the real world."); see also Lisa Heinzerling, *Markets for Arsenic*, 90 GEO. L.J. 2311, 2313 (2002) [hereinafter Heinzerling, *Markets for Arsenic*] (citations omitted) ("[Professor Sunstein] claims that the dollar benefits of the arsenic rule plausibly range from zero to half a billion. Undaunted by this astonishingly wide range, Sunstein argues that cost-benefit analysis is useful to decisionmakers because it helps them to escape the grip of 'intuitive toxicologists' (that is, those of us who are not experts in matters of risk)"); see also FRANK ACKERMAN & LISA HEINZERLING, PRICELESS: ON KNOWING THE PRICE OF EVERYTHING AND THE VALUE OF NOTHING 45 (2000) ("[A]nalysts—including economist Randall Lutter, of the American Enterprise Institute—are busily working to show that EPA got it wrong when it looked at the economics of banning leaded gasoline almost two decades ago."). Ackerman and Heinzerling later state:

Perhaps the most striking criticism . . . came from Robert Stavins, a well-known environmental economist . . . His comments to EPA represented a dramatic reversal of his past views . . . By 2002, . . . Stavins was consulting for Pacific Gas & Electric, the giant California energy company that starred opposite Julia Roberts in the movie *Erin Brockovich*. His cautions from the 1980s about the limits of cost-benefit analysis were long since forgotten

Id. at 174-75.

7. In this author's view, the last significant reform being the Clean Air Act Amendments of 1990, Pub. L. No. 101-549, 104 Stat. 2399 (1990) (codified in section of 42 U.S.C.).

challenges has partisans coping with their ignorance with reflexive skepticism and instinctive hostility to proxy enemies. Arguments over climate change, hydraulic fracturing, and the genetic modification of foods have each generated a good deal more heat than light, in part because solid conclusions have remained elusive. Into these knowledge vacuums have rushed a new genre of mass campaigns, polemics of suspicion taking full advantage of the dissemination powers of the internet.⁸

I consider this new kind of opposition *postmodern* in nature because it has sought to undermine the legitimacy of lawmaking by arguing that it generates outcomes that are structurally and inherently biased. A fundamental postmodern objection is that neutral institutions are not really neutral at all but are hidden power grabs. The primary fear of this new form of opposition in environmental law, which I label the *environmental postmodernists*, is that changes are afoot by which special interest groups seek to gerrymander environmental law to their private advantage, and to the detriment of public health and the environment. Environmental postmodernists urge us to take a skeptical look at the claims of reformers. I call them *accidental* postmodernists because they make no claim that their opposition is postmodernist at all; they likely do not consider themselves postmodernist. Some environmental postmodernists are climate skeptics, challenging climate scientists that warn of the dangers of global climate change.⁹ Some of these industry-funded and Koch Brothers-funded groups¹⁰

8. See, e.g., Joe Nocera, *Fracking's Achilles' Heel*, N.Y. TIMES (Nov. 18, 2013), <http://www.nytimes.com/2013/11/19/opinion/nocera-frackings-achilles-heel.html> (noting suspicion about hydraulic fracturing). For example:

Shortly after [Colorado Governor] Hickenlooper announced the proposed rules in a press conference, I called Sam Schabacker, the Mountain West regional director for a group called Food and Water Watch. He hadn't yet read the proposed rules, but that didn't stop him. These new rules were just a "smoke screen," he said, designed to fool the public. E.D.F. was giving industry "a veneer of respectability." Then he added, "We believe that fracking is inherently unsafe and should be banned."

Id. On the emotional nature of genetically modified foods, see, for example, Amy Harmon, *A Lonely Quest for Facts on Genetically Modified Crops*, N.Y. TIMES (Jan 4, 2014), <http://www.nytimes.com/2014/01/05/us/on-hawaii-a-lonely-quest-for-facts-about-gmos.html> ("Public hearings were dominated by recitations of the ills often attributed to genetically modified organisms, or G.M.O.s: cancer in rats, a rise in childhood allergies, out-of-control superweeds, genetic contamination, overuse of pesticides, the disappearance of butterflies and bees."). On climate change, see discussion *infra* Part II.C.

9. See discussion *infra* Part II.C.

10. The Koch brothers, billionaire fossil fuel company owners, have donated generously to a number of groups with an aggressive agenda centered on sowing skepticism and doubt about the science of climate change. See, e.g., Eric Holmberg & Alexia Fernandez Campbell, *Koch Climate Pledge Strategy Continues to Grow*, INVESTIGATIVE REPORTING WORKSHOP (July 1, 2013), http://investigativereportingworkshop.org/investigations/the_koch_club/story/Koch_climate_pledge_strategy/ ("Staffers from some Koch-funded nonprofit groups have continued to testify before Congress,

would seem to have little in common with the likes of the liberal Center for Progressive Reform.¹¹ But these strange bedfellows sometimes share an unmistakably postmodern mode of objection: to sow skepticism.

In particular, environmental postmodernists have rallied around opposition to the use of cost-benefit analysis in environmental law and around a discomfort with the way that science is produced and used in environmental policy. What emerges from environmental postmodernist opposition in these two very different policy arenas is a shared skepticism of a narrative that seems to be gaining a dominant position. For those nervous about cost-benefit analysis, every piece of policy seems to be animated by a curiously opaque cost-benefit analysis. For those distraught over a perceived misuse of science in public policy, suspect “policy-relevant” science¹² generated under suspicious conditions, seems to usurp a variety of other relevant (but less objective-sounding) considerations. Lacking adequate access to policy-relevant science, disenfranchised scientists turn postmodernist.

When environmental postmodernists resist change, a secondary motivation suggests itself: self-preservation. When environmental postmodernists on the left, composed mostly of lawyers and law professors, argue for a return to environmental law the way it has been traditionally practiced, it reflects a fear that reform may render them less relevant to law- and policy-making. Many reforms or changes devolve environmental decision-making to actors other than lawyers, such that much environmental law- and policy-making is made beyond the legal realm. Cost-benefit analyses, which can have an enormous impact on a proposed rulemaking, elevate the importance of economists and diminish the role of lawyers. Market-based reforms, like cap-and-trade, rob lawyers of thousands of billable hours litigating legal issues like the meaning of “routine maintenance, repair and replacement,”¹³ and deprive lawyers and

sowing doubt about climate change . . .”); Robert J. Brulle, *Institutionalizing Delay: Foundation Funding and the Creation of U.S. Climate Change Counter-Movement Organizations*, 122 CLIMATIC CHANGE 68182 (2014) (discussing the funding of organizations contesting the need for climate change policy).

11. See, e.g., John McArdle, *Progressives Bang Drums for ‘Course Correction’ at White House Reg Office*, GREENWIRE (May 16, 2013), <http://www.eenews.net/stories/1059981294> (referring to Rena Steinzor as “president of the left-leaning Center for Progressive Reform”).

12. Policy-relevant science is distinguished from basic science in its unique relevance to a specific question of public policy. See *infra* notes 154–58 and accompanying text.

13. A “modification” to a facility regulated under § 111 of the Clean Air Act will trigger a requirement that the facility obtain a permit from EPA or a state permitting agency prior to commencing construction. Clean Air Act § 111, 42 U.S.C. § 7411(a)(4) (2012). However, if the facility can establish that the modification is merely “[r]outine maintenance, repair, and replacement,” then it is exempt from permitting requirements. 40 C.F.R. § 52.21 (2011). The terms have been a fertile source of litigation.

law professors of the opportunity to write about it.¹⁴ Understandably, environmental lawyers are reluctant to cede their historical domain to social scientists and other Johnny-come-latelies. But when environmental lawyers try to corral environmental law- and policy-making back onto their own turf, they are vulnerable to the same kinds of criticism that they levy against others: They are only out to grab (or preserve) power. Environmental postmodernists open themselves up, ironically, to postmodern critiques.

Self-preservation aside, do environmental postmodernists nevertheless have a point? Reform efforts are indeed often ideological, and nakedly so, providing environmental postmodernists with convenient targets. But it is possible for environmental postmodernists to prove too much. Postmodernist skepticism has the effect of raising the burden of proof, translating negative circumstantial evidence into smoking guns. There is also something unsatisfying with a mode of thought that is reflexively skeptical, casting a negative pall over discourse, while offering little positive guidance.

Some environmental postmodernists have avoided this negativity trap that has ensnared the traditional, French, “post-structural” postmodernists.¹⁵ Some have argued for a “pragmatic reorientation” of policy analysis that is more in keeping with the notion of the policy professional as multidisciplinary mediator of diverse stakeholders.¹⁶ Some environmental postmodernists have proposed alternatives that truly seek to broaden process inputs rather than achieve outcomes. Principled postmodernists can really only support this kind of solution. Broadening the process inputs to

See, e.g., Shi-Ling Hsu, *The Real Problem With New Source Review*, 36 ENVTL. L. REP. 10095, 10100 (2006) (describing litigation that has resulted from attempts to define terms in the Clean Air Act).

14. See, e.g., Robert R. Nordhaus, *Modernizing the Clean Air Act Is There Life After 40?*, 33 ENERGY L.J. 365, 374–75 (2012); Daniel E. Walters, *Litigation-Fostered Bureaucratic Autonomy Administrative Law Against Political Control*, 28 J.L. & POL. 129, 151 (2013); Thomas O. McGarity, *When Strong Enforcement Works Better Than Weak Regulation*, 72 MD. L. REV. 1204, 1205–06, 1276, 1281 (2013) (claiming that environmental regulations are either deterrence-based or assistance-based; in deterrence-based regulation, regulatees are pure economic actors, while in assistance-based regulation, regulatees can be trusted to err on the compliance side in statutory interpretation); see also *New York v. EPA*, 413 F.3d 3, 12 (D.C. Cir. 2005) (describing attempts to redefine the meaning of “[r]outine maintenance, repair, and replacement”); *United States v. Ohio Edison Co.*, 276 F. Supp. 2d 829, 850–51 (S.D. Ohio 2003) (attempting to redefine the meaning of “routine maintenance, repair, and replacement”).

15. Post-structural postmodernism is commonly thought of as the strand of postmodern thought that is most pronounced in its skepticism of grand assertions as power plays, and its dogmatic insistence on the instability of knowledge and meaning. Its tenets form a set of core beliefs for most postmodernists. See, e.g., MADAN SARUP, AN INTRODUCTORY GUIDE TO POST-STRUCTURALISM AND POSTMODERNISM 1–4 (Univ. of Ga. Press, 2d ed. 1993).

16. Sidney A. Shapiro & Christopher H. Schroeder, *Beyond Cost-Benefit Analysis A Pragmatic Reorientation*, 32 HARV. ENVTL. L. REV. 433, 433–34 (2008).

law and policy development is power *diffusion*, and is the only kind of proposal that *could* survive the cynically postmodernist complaint that the purpose of every change in rules is a power grab.

Part I of this Article will describe postmodernism and its influence in legal thought. Part II examines a live and persistent controversy in an area in which environmental reform has met with opposition from environmental postmodernists: the use of cost-benefit analysis (CBA) in environmental law. This Part also considers the evolving role of science in environmental law- and policy-making, and postmodern themes that are raised in public discourse, including those raised by climate skeptics in opposing the prevailing message of climate scientists. Part III of this Article offers a critical evaluation of the environmental postmodernist objection and a synthesis with what appears to be a positivist trend in environmental law- and policy-making. Part IV concludes with some summary remarks and observations on future trends and counter-trends in environmental law.

I. WHAT IS POSTMODERNISM?

Postmodernism is hard to define, even for postmodernists,¹⁷ in part because postmodernism is best understood as *opposition* to something, or *skepticism* towards a proposition, rather than itself an idea.¹⁸ Postmodernist scholars differ, but fundamentally postmodernists pose definitional challenges to authority and power. The postmodernist philosopher Jean-Francois Lyotard defined the “postmodern condition” as “incredulity

17. See, e.g., Dietmar Voss & Jochen C. Schutze, *Postmodernism in Context Perspectives of a Structural Change in Society, Literature, and Literary Criticism*, 47 NEW GERMAN CRITIQUE 119, 119 (1989) (“The participants in the discussion seem to agree on one thing: that there is the greatest possible disagreement as to what postmodernism is. The term itself is unspecific, unsuitable to express the self-understanding of an era. It resists comprehensive definition and appears, at the same time, to accept content so arbitrary that some commentators are deluded into regarding this arbitrariness itself as an essential characteristic of postmodernism.”).

18. To some extent, defining postmodernism is oxymoronic, since a basic tenet of postmodernism is that attempts to generalize and describe are inherently biased by cultural specificities of the observer. Postmodernists are generally skeptical of pronouncements of truth and attempts to discern truth. See, e.g., TIM WOODS, BEGINNING POSTMODERNISM 9 (2d ed. 2009) (“Whereas philosophers such as Jean-Jacques Rousseau, Immanuel Kant and G.W.F. Hegel . . . placed a great deal of faith in a human’s ability to reason . . . [.] postmodernism is an attack on reason.”). For example, while postmodernist scholar Jean Francois Lyotard defines *postmodern* as “incredulity towards metanarratives,” JEAN FRANCOIS LYOTARD, THE POSTMODERN CONDITION, at xxiv (Geoff Bennington & Brian Massumi trans., Univ. of Minn. Press 1984) (1979), Fredric Jameson, a Marxist and postmodernist, rejects the view that postmodernist theories are necessarily atomistic and insusceptible of generalization. FREDRIC JAMESON, POSTMODERNISM OR, THE CULTURAL LOGIC OF LATE CAPITALISM 3 (1991) (“[T]heories of the postmodern . . . bear a strong family resemblance to all those more ambitious sociological generalizations . . .”).

towards metanarratives”—overgeneralizations that try to prove too much.¹⁹ As such, postmodernists have generally resisted Kantianism, Hegelianism, and Marxism, all grand theories that take a progressive view of history, that knowledge can liberate and that all knowledge has a secret unity.²⁰ This skepticism has pervaded several fields of study, establishing lasting footholds in fields such as architecture,²¹ art,²² literature,²³ music,²⁴ and education.²⁵ In law, postmodernism has spawned the rise of Critical Legal Studies, Critical Race Theory, and other “Crits.”²⁶ At bottom, postmodernists are skeptical of any claims of objectivity or broad generality.

Jean-Francois Lyotard took particular exception to science, arguing that scientists were not really engaged in an objective pursuit of truth, but in a self-serving verification of their own research.²⁷ The scientific method, in Lyotard’s view, was little more than a quest to confirm the correctness of hypotheses, which themselves are products of social structures and biases.²⁸ But Lyotard’s work is only an extension of the work of another, larger postmodernist figure: his contemporary, French philosopher Michel Foucault. Foucault’s early defining work, *The History of Madness in the Classical Age*,²⁹ a product of his painstaking research in Parisian mental hospitals, is a damning critique of a medical profession that had classified homosexuality as a ““mental illness.””³⁰ Later, in *Discipline and Punish*,³¹

19. LYOTARD, *supra* note 18, at xxiv.

20. CHRISTOPHER BUTLER, POSTMODERNISM: A VERY SHORT INTRODUCTION 13 (2002).

21. *Id.* at 89–91.

22. *Id.* at 62–68.

23. *Id.* at 69–73.

24. *Id.* at 73–76.

25. PAULINE MARIE ROSENAU, POST-MODERNISM AND THE SOCIAL SCIENCES: INSIGHTS, INROADS, AND INTRUSIONS 49 (1992).

26. *See, e.g.*, RICHARD DELGADO & JEAN STEFANCIC, CRITICAL RACE THEORY: AN INTRODUCTION 5 (Richard Delgado & Jean Stefancic, eds., N.Y. Univ. Press 2d ed. 2011) (“[Critical Race Theory] also draws from certain European philosophers and theorists, such as Antonio Gramsci, Michel Foucault, and Jacques Derrida From critical legal studies, the group borrowed the idea of legal indeterminacy . . .”).

27. *See* LYOTARD, *supra* note 18, at 46 (“Scientists, technicians, and instruments are purchased not to find truth, but to augment power.”).

28. *See id.* at 4–5 (“Knowledge is and will be produced in order to be sold, it is and will be consumed in order to be valorized in a new production: in both cases, the goal is exchange. Knowledge ceases to be an end in itself, it loses its ‘use-value.’”).

29. MICHEL FOUCAULT, HISTORY OF MADNESS (Jean Khalfa ed., Jonathan Murphy & Jean Khalfa trans., Routledge 2006) (1961).

30. Gary Gutting, *Michel Foucault*, THE STANFORD ENCYCLOPEDIA OF PHILOSOPHY, <http://plato.stanford.edu/archives/fall2011/entries/Foucault> (last modified Sept. 17, 2008).

31. MICHEL FOUCAULT, DISCIPLINE AND PUNISH (Alan Sheridan trans., Vintage Books 2d ed. 1995) (1977) [hereinafter FOUCAULT, DISCIPLINE AND PUNISH].

Foucault more fully developed his argument that science is as much a social construction as anything else.³² In a 1975 interview, Foucault said:

‘[I]f you are not like everybody else, then you are abnormal, if you are abnormal, then you are sick. These three categories, not being like everybody else, not being normal and being sick are in fact very different but have been reduced to the same thing.’³³

What Foucault describes is deference to scientific expertise run wild. Cloaked in the guise of scientific objectivity, a medical profession wrote definitions and determined courses of treatment, and in effect set its own jurisdiction, without any hint of constraint on its authority. This classification of persons based on sexual orientation would hold sway over the psychiatric profession until 1973.³⁴

Foucault had a compelling reason for straining against the dominant pseudo-science of the time: He was gay.³⁵ It is compelling to consider what it must have been like for Foucault to battle the powerful medical profession and how that profession demeaned his identity. It is doubly compelling to consider how such a categorization was so readily accepted in Foucault’s time, given how modern science regards those categorizations.³⁶ It is triply compelling to consider that this label of “mentally ill” was attached to one of the twentieth century’s most original thinkers because of his sexual orientation.

32. MICHAEL S. FOLDY, *THE TRIALS OF OSCAR WILDE: DEVIANC, MORALITY, AND LATE VICTORIAN SOCIETY* 85 (1997); DAVID HALPERIN, *ONE HUNDRED YEARS OF HOMOSEXUALITY AND OTHER ESSAYS ON GREEK LOVE* 16 (1990); see FOUCAULT, *DISCIPLINE AND PUNISH*, *supra* note 31, at 199 (using social shame surrounding illness as an example).

33. *Quotes of the Month*, MICHEL-FOUCAULT.COM, <http://www.michel-foucault.com/quote/2005q.html> (last visited Nov. 19, 2014) (quoting MICHEL FOUCAULT, *ENTRETIENS* 95 (Roger-Pol Droit ed., 2004)).

34. The American Psychiatric Association removed “homosexuality” from its list of mental disorders in 1973. *LGBT-Sexual Orientation*, AM. PSYCHIATRIC ASS’N, <http://www.psychiatry.org/mental-health/people/lgbt-sexual-orientation> (last visited Nov. 19, 2014). The proponent of the removal, Robert Spitzer, is considered a luminary in the psychiatry field. Benedict Carey, *Psychiatry Giant Sorry for Backing Gay Cure*, N.Y. TIMES (May 18, 2012), http://www.nytimes.com/2012/05/19/health/dr-robert-l-spitzer-noted-psychiatrist-apologizes-for-study-on-gay-cure.html?pagewanted=all&_r=0. Ironically, Spitzer authored a study in 2003 on a treatment that could reverse, or “cure,” homosexuality a study for which he recently issued a public apology in the journal which published the original study. Robert L. Spitzer, Letter to the Editor, *Spitzer Reassesses His 2003 Study of Reparative Therapy of Homosexuality*, 41 ARCHIVES SEXUAL BEHAV. 757 (2012).

35. DAVID M. HALPERIN, *SAINT FOUCAULT: TOWARDS A GAY HAGIOGRAPHY* 3 (1995).

36. See, e.g., *Sexual Orientation and Homosexuality*, AM. PSYCHOLOGICAL ASS’N, <http://www.apa.org/topics/lgbt/orientation.aspx> (last visited Nov. 19, 2014) (“Since 1975, the American Psychological Association has called on psychologists to take the lead in removing the stigma of mental illness that has long been associated with lesbian, gay, and bisexual orientations.”).

Foucault thus serves as a fulcrum for postmodernism not only because of his revolutionary theory but also his personal story. But his skepticism is only the beginning of postmodernism. Another strand of postmodernist literature seeks to *deconstruct* language to reveal embedded societal biases hidden in word choices and phraseology.³⁷ Jacques Derrida, another twentieth century French philosopher, pioneered a school of thought that sought to overturn conventional acceptance of key words and phrases as descriptors of objective fact. For Derrida and the deconstructionist movement, things and situations are susceptible to multiple interpretations, and how any given individual interprets a thing or situation is a product of that individual's "enculturation," or her personal and social history.³⁸ Postmodernist deconstruction thus posits that meaning is never really stable.³⁹ Like Lyotard, Derrida would be skeptical of an interpretation of one thing or situation being applied to another.

As a body of thought, postmodernism has waned in influence, even in its most hospitable environment, academia.⁴⁰ A theory premised upon skepticism that there is ever an accurate description of anything is especially irritating to researchers in the social, biological, and physical

37. BUTLER, *supra* note 20, at 16–19.

38. Postmodernists argue that enculturation is a process by which values and privileges are made a part of a supposedly neutral process, like education, and by which a Western world view has come to be seen as natural and normal. *See, e.g.,* HANDBOOK OF SOCIALIZATION: THEORY AND RESEARCH 547 (Joan E. Grusec & Paul D. Hastings eds., 2007) (“[E]nculturation . . . is an encompassing or surrounding of the individual by one’s culture; the individual acquires appropriate values and behaviors by learning what the culture deems to be necessary.”). Derrida’s term “Logocentrism” refers to the way society tends to order binaries and then take for granted the naturalness of this ranking. Logocentrism is described as “any signifying system governed by the notion of the self-presence of meaning; i.e. any system structured by a valorization of speech over writing, immediacy over distance.” JACQUES DERRIDA, DISSEMINATION 440 (Barbara Johnson trans., Continuum 2004) (1972); *see also* JACQUES DERRIDA, POSITIONS, at xxiii (Alan Bass trans., Continuum 2004) (1972) (“‘Logocentrism’ . . . [is] the deep-laid metaphysical prejudice whereby the values of truth and reason are equated with a privileged epistemic access to thoughts ‘in the mind’ of those presumed or authorized to know.”); DERMOT MORAN, INTRODUCTION TO PHENOMENOLOGY 448 (2000) (“*Logocentrism* refers to the manner in which the traditional prioritisation of reason in philosophy has led to everything deemed ‘irrational’ to be swept aside, treated as marginal and insignificant.”).

39. Deconstruction is a process or analytical technique used to reveal information that may not be obvious or immediately apparent. DECONSTRUCTION IN A NUTSHELL: A CONVERSATION WITH JACQUES DERRIDA 31 (John D. Caputo ed., 1997) (“The very meaning and mission of deconstruction is to show that things—texts, institutions, traditions, societies, beliefs, and practices of whatever size and sort you need—do not have definable meanings and determinable missions, that they are always more than any mission would impose, that they exceed the boundaries they currently occupy.”).

40. EDWARD SLINGERLAND, WHAT SCIENCE OFFERS THE HUMANITIES: INTEGRATING BODY AND CULTURE 96 (2008) (“Bourdieu and the later Latour seem to me to belong to the twilight years of postmodernism, a stage where postmodern theorists have become aware of inadequacies in the strong postmodernist position but have nowhere else to turn.”); Butler, *supra* note 20, at 127 (“I believe that the period of [postmodernism’s] greatest influence is now over.”).

sciences. Research agendas in these types of fields are premised upon some widely agreed-upon goalposts, even if subsequent paradigm-shifting discoveries wind up moving those goalposts.⁴¹ For these fields, such is the price of progress: error and failure. Postmodernists do not readily accept that cost. Their concern typically lies with those that are disadvantaged by change, and it seems a shame to accept such sacrifices for truths that are ultimately fleeting. But this fixation on failure is what has cost postmodernism a seat at even the widely inclusive academic table: Postmodernists have become good at opposing and have lost an ability to articulate what they are for. Christopher Butler has written:

[P]ostmodernists are good critical deconstructors, and terrible constructors. They tend to leave that job to those patient liberals in their society who are still willing to attempt to sort out at least some of those differences between truth and fantasy, which postmodernists blur in a whirlwind of pessimistic assumptions about the inevitability of class or psychological conflict.⁴²

Postmodernists never expected to make friends peddling a body of thought predicated almost solely upon skepticism. But in an academic marketplace of ideas, what most seem to have concluded is that even if the reflexive skepticism of postmodernists happen to be proven correct, it does not actually do any good to adopt a postmodernist perspective. Not only does postmodernism fail to provide any guidance on moving forward, its core mission is to cast doubt on the validity of any such guidance.⁴³ Whereas scientists of all sorts—physical, biological, or social—predicate their research on progress, postmodernists remind us of the pitfalls of progress.

II. POSTMODERNIST OBJECTIONS IN ENVIRONMENTAL LAWMAKING

No one has ever been truly happy with environmental law. Not even in its heady early days, when environmental advocates scored important U.S.

41. BUTLER, *supra* note 20, at 17.

42. *Id.* at 116.

43. See, e.g., SLINGERLAND, *supra* note 40, at 143 (“Whether or not it is . . . possible for a human being to genuinely embrace an attitude of extreme skepticism, the self-refuting nature of skepticism makes it difficult to see . . . how it could function as a viable intellectual position . . .”); BUTLER, *supra* note 20, at 61 (“For many, the postmodernist position is a disabling one—postmodernists are just epistemological pluralists, with no firm general position available to them . . .”).

Supreme Court victories,⁴⁴ did environmental advocates believe that they could use the law to adequately protect the environment.⁴⁵ Regulated industries, of course, have always complained about costly, burdensome regulations and red tape.⁴⁶ Even in the presence of divided legislatures and fractured politics, it would be surprising if no one ever suggested improvements to environmental law.

But environmental postmodernists counsel caution in reforming or changing environmental law. Some proposed reforms strike a nerve and excite such strong passions that adversaries seem to believe they are fighting for the soul of environmental law. This Article focuses on opposition to the use of CBA in environmental law and argues that much of the opposition to CBA is postmodernist in nature.

There is an additional development that signals changing times in environmental law. In recent years, the role of physical and biological sciences in environmental lawmaking seems to have become more controversial. Often, the nature of these objections is on the merits: Disagreement can arise because of differences of opinion on scientific method, interpretation, or techniques. But increasingly, accusations of bias, disingenuousness, and conflict of interest are being levied on scientists. The objectivity of scientists has been questioned, and evidence of bias may stem from their professional position, funding, and incentives to reach a particular result in their scientific research. This too is postmodern. Rather than engage on the merits of a scientific debate, postmodernists are urging lawmakers to draw inferences from circumstantial evidence. Here too postmodernism is influential in that it urges us to look beyond the text and the putative merits of something proffered and skeptically consider inputs into a proposal or process. Importantly, this kind of postmodern attack has been as much a mark of regulated industries as it has been of liberal environmental groups.

44. For example, environmental advocacy groups frequently cite *Tennessee Valley Authority v. Hill* as an example of an upset victory by an environmental interest over a well-funded industrial one under the Endangered Species Act. *Tenn. Valley Auth. v. Hill*, 437 U.S. 153, 189 (1978); *see also* *Sierra Club v. Morton*, 405 U.S. 727 (1972) (allowing the then-nascent Sierra Club to stop development of a ski resort).

45. SAMUEL P. HAYS, *A HISTORY OF ENVIRONMENTAL POLITICS SINCE 1945*, at 198 (2000) [hereinafter HAYS, *A HISTORY*] (“For others, none of the varied environmental programs worked; they were a massive waste of effort and funds.”).

46. *See, e.g.*, Thomas O. McGarity, *Regulatory Analysis and Regulatory Reform*, 65 TEX. L. REV. 1243, 1244 (1987) (“Critics argued that federal agencies operated beyond the range of effective political control and were irrationally imposing burdensome requirements on regulated entities without considering the social costs of the regulations.”).

A. *The Postmodernist Objection to Cost-Benefit Analysis*

It is no exaggeration to say that quietly and behind the scenes, the administrative practice of federal environmental law has changed significantly. Proponents and detractors agree that CBA has, in fact, grown in importance in federal environmental law- and policy-making.⁴⁷ To hear CBA proponents describe this development, CBA is a welcome tweak and a refinement of environmental law- and policy-making.⁴⁸ To hear critics describe it, CBA imminently and gravely threatens the health of humans and the environment.⁴⁹

CBA in environmental law applies a cost-benefit test to a legal or policy change. Public projects are almost always subjected to a CBA to determine if the project's benefits will outweigh the costs, or if the value of the outputs will exceed the value of the inputs.⁵⁰ For federal rulemakings, a proposed environmental regulation is subjected to a review by the Office of Information and Regulatory Affairs (OIRA), which is responsible for CBAs mandated by executive orders issued by past and current presidents.⁵¹ It is in this area that CBA generates the most controversy: The suggestion that a

47. See, e.g., Shapiro & Schroeder, *supra* note 16, at 435 ("CBA has only strengthened its dominance in the past twenty-five years."); Richard W. Parker, *Grading the Government*, 70 U. CHI. L. REV. 1345, 1355 n.36 (2003) ("[F]or better or worse, cost-benefit analysis (with all of its built-in value assumptions) has been ratified by Congress—and applied to regulation . . ."); Cass R. Sunstein, *Cost-Benefit Default Principles*, 99 MICH. L. REV. 1651, 1656–63 (2001) (describing the shift from the "apparently cost-blind" environmental regulations of the 1970s to a greater focus on CBA principles); Amy Sinden, *The Economics of Endangered Species: Why Less Is More in the Economic Analysis of Critical Habitat Designations*, 28 HARV. ENVTL. L. REV. 129, 184 (2004) ("Indeed, formal economic cost-benefit analysis now enjoys a level of acceptance and credibility in both academic and government circles that was unthinkable three decades ago.").

48. See, e.g., John D. Graham, *Saving Lives through Administrative Law and Economics*, 157 U. PA. L. REV. 395 (2008) (arguing that "lifesaving regulation informed by" CBA has advantages over regulation informed by alternatives to CBA); see also, RICHARD L. REVESZ & MICHAEL LIVERMORE, *RETAKING RATIONALITY: HOW COST-BENEFIT ANALYSIS CAN BETTER PROTECT THE ENVIRONMENT AND OUR HEALTH* 3 (2008) (arguing that CBA can improve environmental regulatory decisions).

49. Lisa Heinzerling describes a table created by John Morall and used for cost-benefit analysis as "a Trojan horse that has been wheeled into the debate over regulatory reform, loaded with the values the debate is supposed to be about." Lisa Heinzerling, *Regulatory Costs of Mythic Proportions*, 107 YALE L.J. 1981, 2070 (1998) [hereinafter Heinzerling, *Regulatory Costs of Mythic Proportions*]. John Morall is an economist who worked at the Office of Management and Budget during the 1980s. *Id.* at 1983.

50. RICHARD O. ZERBE JR. & ALLEN S. BELLAS, *A PRIMER FOR BENEFIT-COST ANALYSIS* 2 (2006).

51. See, e.g., Exec. Order No. 12866 § 2(b), 58 Fed. Reg. 51735, 51737 (Oct. 4, 1993) (describing OIRA's role in renewing regulations).

regulation to protect human health or the environment should pass some sort of “test” is viewed as being just an extra obstacle to regulation.⁵²

At the outset, it is necessary to acknowledge, without resolving, two *non*-postmodernist objections. Daniel Farber and Lisa Heinzerling are among those that have argued that applying CBA to certain environmental and labor standards violates statutory mandates by which Congress delegated authority to the EPA, OSHA, and other regulatory agencies.⁵³ A number of statutes mandate standard setting, but then set out some basis or criteria that suggest, in Farber’s view, an intent to preclude use of CBA.⁵⁴ Phrases such as “requisite to protect the public health”⁵⁵ or “lowest achievable emission rate”⁵⁶ seem to direct the EPA to take only some considerations into account, but not costs.⁵⁷ These provisions are especially noteworthy when juxtaposed against provisions in which Congress *did* seem to contemplate the use of CBA. For example, § 304(b)(4) of the Clean Water Act requires the “best conventional pollutant control technology,” which includes some consideration of the reasonableness of costs vis-à-vis the benefits.⁵⁸ But while this is an important question—and possibly a legally dispositive one—it will not decide the ultimate fate of CBA. Congress obviously could, if it were in the mood (and politically able), statutorily authorize or even mandate agencies to do CBA. The ultimate question is whether it should.

A second *non*-postmodernist objection, from Douglas Kysar in his book *Regulating From Nowhere*, is that CBA lacks the moral content necessary to guide environmental law- and policy-making.⁵⁹ CBA rejects any normative criteria other than a decidedly rough welfare calculus, which is, in Kysar’s view, incongruous with the way that both individuals and groups make choices.⁶⁰ Furthermore, Kysar argues, the embrace of CBA would have something of a moral numbing effect that threatens to rob

52. See, e.g., Lisa Heinzerling, *Risking It All*, 57 ALA. L. REV. 103, 113 (2005) (“[A]t OMB today, cost-benefit analysis continues to be what it has always been—a one-way street to deregulation.”).

53. Daniel Farber, *Rethinking the Role of Cost-Benefit Analysis*, 76 U. CHI. L. REV. 1355, 1356–57 (2009); Lisa Heinzerling, *Statutory Interpretation in the Era of OIRA*, 33 FORDHAM URB. L.J. 1097, 1098 (2006).

54. Farber, *supra* note 53, at 1358.

55. Clean Air Act, 42 U.S.C. § 7409(b)(1) (2012).

56. *Id.* § 7412(d).

57. *Whitman v. Am. Trucking Ass’n*, 531 U.S. 457, 466–68 (2001).

58. Best Conventional Pollutant Control Technology; Effluent Limitation Guidelines, 51 Fed. Reg. 24974, 24974 (July 9, 1986).

59. DOUGLAS A. KYSAR, *REGULATING FROM NOWHERE: ENVIRONMENTAL LAW AND THE SEARCH FOR OBJECTIVITY* 13 (2010).

60. *Id.* at 14–15.

environmental policy of any moral content whatsoever. Kysar rejects the consequentialist approach implicit in CBA in favor of a more traditionally deontological view of environmental law. Professor Kysar's work always merits a serious response, but I do not undertake that here. The focus of this Article is a certain type of argument that implicitly raises epistemological issues more complicated than environmental postmodernists acknowledge. Objections by Professors Kysar, Farber, and Heinzerling (at least the ones she raises that are described above) raise a number of other issues, but are not postmodern.

The broader normative question is whether CBA offers a better decision-making process for environmental law- and policy-making. Implicitly, the environmental postmodern objection is that CBA is inherently and perhaps purposively biased, so, from a public interest and environmental quality perspective, it must be inferior. Environmental postmodernists believe that CBA is: (1) more manipulable by regulated industries than traditional lawmaking processes; and (2) structurally and inherently biased against environmental and public health values. Analyses of these two objections now follow.

1. CBA is Manipulable

Environmental postmodernists argue that CBA is inherently indeterminate. Clashes over environmental regulation are clashes over values, which are inherently subjective.⁶¹ But CBA purports to transcend a value-centered debate and offer an objective alternative, thereby glossing over the indeterminacy. Writes Amy Sinden:

Because it is indeterminate, CBA exacerbates the problem of power imbalance. First, it hides the fact of its indeterminacy behind a false veil of seemingly accurate, scientific and objective numbers, thus masking the value judgments that must inevitably go into choosing such numbers.⁶²

That indeterminacy creates the opportunity for manipulation. Continues Sinden:

[I]ndeterminacy renders CBA not only ineffectual, but also endlessly manipulable . . . [F]or any claim that the benefits of a

61. Heinzerling, *Regulatory Costs of Mythic Proportions*, *supra* note 49, at 1986.

62. Amy Sinden, *In Defense of Absolutes: Combating the Politics of Power in Environmental Law*, 90 IOWA L. REV. 1405, 1454 (2005) [hereinafter Sinden, *In Defense of Absolutes*].

particular project outweigh its costs, another economist can make a credible argument that the costs outweigh the benefits.⁶³

Rena Steinzor, the president of the Center for Progressive Reform, echoes these objections:

Billed as a non-ideological analytical tool, CBA today is in fact the opposite: questionable value judgments masked as technical calculations, all used as window-dressing to block rules that benefit the public but upset powerful industries.⁶⁴

Manipulation need not even be so blunt. CBA can shift not only the terms of the debate but also the locus. For some environmental postmodernists, CBA is a move to an anti-democratic mode of decision-making, one in which public debate is quashed. Mark Sagoff has argued:

Cost-benefit approaches to public policy . . . substitute themselves for the processes of democratic government. The genius of cost-benefit analysis is to localize conflict among affected individuals and thereby to prevent it from breaking out into the public realm The deeper reason [that industry favors cost-benefit analysis] may be that cost-benefit analysis defines a framework for conflict that keeps the public qua public and the citizen qua citizen out.⁶⁵

These accidental environmental postmodernists are telling us that CBA is indeterminate, and therefore manipulable, and that powerful industries manipulate CBA to consolidate their power. But these accounts have been told before by the older, traditional, post-structuralist postmodernists. Postmodernists have been arguing that power is exercised through the guise of objectivity and neutrality. The postmodern argument is that what people perceive as truthful and accurate is really a function of what powerful interests assert as being truthful and accurate. In writing about the

63. *Id.* at 1409–10.

64. Rena Steinzor, *The Unpopularity of Cost-Benefit Analysis*, CPRBLOG (Sept. 14, 2012), <http://www.progressivereform.org/CPRBlog.cfm?idBlog=C51BD4A8-9EF0-DBA1-7C1ECE949C6E19CB>; see also Thomas O. McGarity, *Professor Sunstein's Fuzzy Math*, 90 GEO. L.J. 2341, 2366 (2002) (“At the end of the day, one is left with a pressing need to know why a person with Professor Sunstein’s obvious intelligence and even disposition would conclude that all of this occasionally comprehensible, but frequently preposterous and always manipulable number spinning, could possibly lead to better decisionmaking in the real world.”).

65. MARK SAGOFF, *THE ECONOMY OF THE EARTH: PHILOSOPHY, LAW, AND THE ENVIRONMENT* 97 (1988).

“‘political economy’ of truth,” Foucault challenges the positivist notion that there is one immutable “truth”:

[T]ruth isn’t outside power Each society has its régime of truth, its ‘general politics’ of truth [T]ruth’ is centred on the form of scientific discourse and the institutions which produce it; it is subject to constant economic and political incitement[:] . . . it is produced and transmitted under the control . . . of a few great political and economic apparatuses⁶⁶

That reform proposals insert themselves into a democratic process under a pretense of neutrality, but are really instituted to consolidate power, is a fundamental postmodern idea. One of Foucault’s examples was the institution of “People’s courts” during the French revolution, introduced (in Foucault’s view) not to actually mete out justice, but to partly insulate a bourgeoisie from the violent masses⁶⁷:

[T]he people’s court . . . did tend to act as a ‘neutral institution’ [It] took up a position as intermediary, and . . . functioned as a mediator; in doing this it drew on an ideology which was up to a certain point the ideology of the dominant class, which determined what . . . was ‘right’ or ‘not right’⁶⁸

Foucault is describing, in his view, the introduction of the People’s courts not as actually neutral institutions of “justice,” but as political instruments. Foucault was a legal realist!⁶⁹ This substitution took place

66. MICHEL FOUCAULT, POWER/KNOWLEDGE: SELECTED INTERVIEWS AND OTHER WRITINGS 1972–1977, at 131–32 (Colin Gordon ed., Colin Gordon et al. trans., 1980) (1972) [hereinafter FOUCAULT, POWER/KNOWLEDGE].

67. Foucault is likely referring to the Revolutionary Tribunal of Paris, organized during the French Revolution to mete out justice, at least in the non-postmodernist account. To be sure, it was rough justice at best and not truly a “court” in the sense that modern scholars would understand it. *See, e.g.,* JAMES L. GODFREY, A STUDY IN THE ORGANIZATION, PERSONNEL, AND PROCEDURE OF THE PARIS TRIBUNAL, 1793–1795, at 14, 7–8, 10 (1951). So-called Peoples’ courts have been utilized in several countries in the way that Foucault describes, as a political palliative. *See, e.g.,* John N. Hazard, *Soviet Law An Introduction*, 36 COLUM. L. REV. 1236, 1265 (1936) (“The state machine has used the law and the courts as its tools together with the army and police to preserve its authority. This law has changed from formal inequality under the slaveholding state and the feudal state to *formal equality* under the state administered by the bourgeoisie. But even under this most recent stage, the Marxist explains that it has never lost its *factual inequality* as between the bourgeoisie and the proletariat, the exploiting and the exploited classes.”).

68. FOUCAULT, POWER/KNOWLEDGE, *supra* note 66, at 3.

69. In simple terms, legal realism was a counterpoint to formalism, and a reaction against the notion that legal rules could serve as a bedrock for legal administration. For a general treatise and

against a backdrop in which masses were capable of (and indeed did) carry out acts of vengeance and revolt that horrified French elites, hence the need to calm the masses.

The postmodern and environmental postmodern narratives do not parallel perfectly. Foucault deconstructs a court system, while environmental postmodernists deconstruct economics. According to Foucault, the French bourgeoisie attempted to appease the violent masses by installing a judicial system; however sharp the environmental postmodernist criticism, there has not been any threat of decapitation (yet). But the dynamic is the same: the introduction of a new institution that poses as a neutral arbiter, but in reality is an attempt to seize power. The French bourgeoisie can control the outcomes of court decisions, and economists can control the outcome of CBAs; there is no real neutrality at all. The manipulability of CBA is a rebirth of a postmodernist fear of alien control. To environmental postmodernists, the only reason that CBA is proposed is to achieve a particular result. Hoping naively that CBA can improve environmental lawmaking is like hoping that guardian foxes can overcome their taste for chicken.

2. CBA is Structurally Biased

On another level, environmental postmodernists go beyond the manipulability argument and make the more fundamental argument: Not only does CBA give regulated industry a backdoor, but it creates a *structural* bias against the environment. In this account, the affirmative, conscious manipulation of CBA is barely necessary. The game is already rigged. According to critics, the nature of CBA is such that it tilts the good faith practice of CBA against environmental protection.⁷⁰ Lisa Heinzerling, perhaps the strongest critic of CBA, has written:

The problem is not only that those who start from an antienvironmental perspective have often used cost-benefit analysis to support their preconceptions. Even when the methods are applied in good faith by neutral or environmentally inclined investigators, we will see that the results tilt strongly toward

critique of legal realism see LAURA KALMAN, *LEGAL REALISM AT YALE: 1927–1960* (1986); see also Oliver Wendell Holmes, *The Path of the Law*, 10 HARV. L. REV. 457, 466–67 (1897) (“[C]ertainty generally is illusion . . . Behind the logical form lies a judgment as to the relative worth and importance of competing legislative grounds, often an inarticulate and unconscious judgment . . . I think that the judges . . . have failed . . . to recognize their duty of weighing considerations of social advantage.”).

70. ACKERMAN & HEINZERLING, *supra* note 6, at 36.

endorsement of business as usual, and rejection of health and environmental protection.⁷¹

How did that happen? How did a supposedly neutral social science—economics—become not just a policy tool for regulated industries, but a whole new ballgame in which the environment and public health always lose?

The answer offered by environmental postmodernists is that CBA is just another falsely objective means of moving environmental discourse onto another battleground—economics—in which industrial interests have an advantage over environmental advocates. Inherent in CBA is an emphasis on monetary values. Compared with environmental values, the industrial compliance costs of environmental regulation are clearly more measurable, more recognizable, and therefore over-weighted in CBA relative to environmental values. The scales are inherently tipped against environmental values. Writes Amy Sinden:

[E]fforts at quantification are inevitably systematically skewed in favor of the costs and against the benefits of environmental protection. First, because the benefits of regulation are generally harder to quantify than the costs, the benefits tend to be undercounted. . . . Second, because estimates of the costs of regulations are often provided by the industry facing regulation, they are often artificially, self-servingly high.⁷²

Moreover, to do CBAs, one needs economists; economists cost money, and industrial interests have money to spend on mercenary economists, whereas environmental advocacy groups still scrape up just enough money to keep the lights on.⁷³ Thus, the CBA criticism that it requires resources that regulated industries have but environmental advocacy groups do not, is postmodernist in the sense that it argues CBA is a power grab.

Beyond these points, environmental postmodernists argue that there is a more subtle, but more serious effect. Environmental postmodernists claim that CBA introduces an alternative *language* that conceals indeterminacy and falsely projects neutrality and objectivity. Writes Lisa Heinzerling:

71. *Id.*

72. Sinden, *In Defense of Absolutes*, *supra* note 62, at 1457–58.

73. See, e.g., *id.* at 1410 (“[B]y framing the discussion in the esoteric technical terms of economic theory and thereby putting a premium on the ability to hire expensive experts, CBA exacerbates the extent to which that political process is inaccessible to the average citizen and skewed in favor of powerful, monied, corporate interests.”).

Most of these people are economists or law professors who have a special interest and expertise in economics. Perhaps cost-benefit analysis is more transparent to these experts because they speak its language.⁷⁴

This linguistic sleight-of-hand is particularly insidious because, as it turns out, people like objectivity and precision. CBA supplies them with exactly that, albeit under false pretense. Environmental postmodernists assert that clashes over environmental regulation are clashes over values, which are inherently subjective.⁷⁵ CBA purports to transcend a value-centered debate and offer an objective alternative, thereby offering people a way out of the messy business of grappling with value clashes, and essentially leaving it up to arbitration by economics. In criticizing an influential study in the 1980s by former Office of Management and Budget official John Morrall,⁷⁶ Heinzerling writes:

Value choices of this kind underlie Morrall's numbers, as well as my own. To say that one of these sets of numbers is true, and the other false, is thus misleading. It depends on one's hopes, fears, and anxieties.⁷⁷

Later in the article, Heinzerling continues:

Many thoughtful scholars of the regulatory process have embraced the numerical results of Morrall's table These numbers are beguiling because they promise objectivity and clarity. . . . At worst, they derail thoughtful discussion by offering the illusion of objective accuracy⁷⁸

What, then, is CBA doing when it conceals the indeterminacy and the value choices? It is tacitly choosing a set of assumptions that are not necessarily shared by all. Indeed, environmental postmodernists suggest that these assumptions are quite narrowly shared only by regulated industries. And these assumptions happen to be those that economists tend to make, so goes the argument. CBA is the elevation of economics over all

74. Heinzerling, *Markets for Arsenic*, *supra* note 6, at 2338.

75. Heinzerling, *Regulatory Costs of Mythic Proportions*, *supra* note 49, at 1986.

76. John F. Morrall III, *A Review of the Record*, REGULATION, Nov./Dec. 1986, at 25, 25. In the study, Morrall examined the benefits and costs of forty-four federal health and safety regulations. *Id.* at 25, 30 tbl.4.

77. Heinzerling, *Regulatory Costs of Mythic Proportions*, *supra* note 49, at 1986.

78. *Id.* at 2070.

other ways of thinking and deciding, and the crowding out—consciously, environmental postmodernists would contend—of all others. CBA is thus not a neutral policy tool, but a rhetorical barrier that privileges certain groups at the expense of others. The language of economics becomes power.

This line of argument is so perfectly postmodern that Foucault, Derrida, and Lyotard could not have scripted a better policy problem for postmodernist objection. Had they engaged with the dismal science⁷⁹ they probably would have made exactly this argument. As with many things postmodern, language plays a central role in exercising power under the guise of neutrality. In *Power/Knowledge*, Foucault sets out his theory on the use of language in projecting power. In it, he writes:

‘Dialectic’ is a way of evading the always open and hazardous reality of conflict by reducing it to a Hegelian skeleton, and ‘semiology’ is a way of avoiding its violent, bloody and lethal character by reducing it to the calm Platonic form of language and dialogue.⁸⁰

What Foucault brought to the fore was the theory that calm and order were achieved not by brute physical power, but by language. This use of language is central to postmodern theory. Postmodernist feminist scholar Judith Butler has argued that power is exercised through falsely neutral language. In *Excitable Speech*, she writes:

Power works through dissimulation: it comes to appear as something other than itself, indeed, it comes to appear as a name.⁸¹

Language creates norms, and norms are the hidden way in which power is covertly exercised. In *The Psychic Life of Power* Butler writes:

79. To this author’s knowledge the only significant exchange between postmodernists and economists was two public lectures on March 14 and 21, 1979, by Foucault on Gary Becker’s *Crime and Punishment: An Economic Approach*, 76 J. POLIT. ECON. 169 (1968), and Becker’s body of work on human capital. See “Becker and Foucault on Crime and Punishment” *A Conversation with Gary Becker, Francois Ewald, and Bernard Harcourt: The Second Session 1* (Coase-Sandor Institute for Law and Economics, Working Paper No. 654, 2013), available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2321912. The points of agreement and disagreement were left unclear. *Id.* at 2.

80. FOUCAULT, *POWER/KNOWLEDGE*, *supra* note 66, at 114–15.

81. JUDITH BUTLER, *EXCITABLE SPEECH: A POLITICS OF THE PERFORMATIVE* 36 (1997).

The psychic operation of the norm offers a more insidious route for regulatory power than explicit coercion, one whose success allows its tacit operation within the social.⁸²

Although traditional postmodernist theorists never seemed to target economics, the core notion that language is really indeterminate and therefore a fundamental instrument of power is exactly what CBA critics argue. Economics as a discipline does not overtly privilege itself over other social sciences, but does generally hew closely to a set of core modeling principles, such as rationality and maximization assumptions.⁸³ As such, it incorporates quantitative preferences that are somewhat antithetical to qualitative preferences in social sciences, such as sociology and anthropology.⁸⁴ Although most economists have made peace with psychology, economics remains a field that is intellectually insular.⁸⁵ And if economists refuse to engage seriously with at least some social scientists, it opens them up to claims that they “privilege” their own work over that of others. Whether or not this is a fair characterization, it would sound familiar to Jean-Francois Lyotard, who wrote:

Scientific knowledge requires that one language game, denotation, be retained and all others excluded. . . . Scientific knowledge is in this way set apart from the language games that combine to form the social bond.⁸⁶

Similarly, in *Two Lectures*, Michel Foucault wrote:

[B]y subjugated knowledges one should understand something else, . . . namely, a whole set of knowledges that have been disqualified as inadequate to their task or insufficiently elaborated: naive knowledges, located low down on the

82. JUDITH BUTLER, *THE PSYCHIC LIFE OF POWER* 21 (1997).

83. Amartya K. Sen, *Rational Fools: A Critique of the Behavioral Foundations of Economic Theory*, 6 PHIL. & PUB. AFF. 317, 317, 324, 340 (1977); Herbert A. Simon, *Rationality as Process and as Produce of Thought*, 68 AM. ECON. REV., May 1978, at 1, 2–10.

84. See, e.g., Immanuel Wallerstein, *Anthropology, Sociology, and Other Dubious Disciplines*, 44 CURRENT ANTHROPOLOGY 453, 455 (2003) (discussing three groupings of scholars in social sciences).

85. Rik Pieters & Hans Baumgartner, *Who Talks to Whom? Intra- and Interdisciplinary Communication of Economics Journals*, 40 J. ECON. LIT. 483, 498 (2002) (“The high percentage of intradisciplinary citations (90 percent) in economics reflects a high level of intradisciplinary and a low level of interdisciplinary knowledge building.”).

86. LYOTARD, *supra* note 18, at 25.

hierarchy, beneath the required level of cognition or scientificity.⁸⁷

The attack on CBA is really postmodernism reborn. Environmental postmodernists have attacked CBA and its proponents in the same way that Foucault attacked the psychiatric profession and Lyotard attacked the sciences. No critic has tried to equate the two or suggest CBA is anything like homophobia. In fact, environmental postmodernists do not appear to see themselves as postmodernists at all. But in both cases, there arose a profession—psychiatry in Foucault’s early days and economics today—that offered a new direction in thinking and a new set of definitions. In both cases, there is at least the perception that the profession is exclusive and that members share a language that is alien to almost all outsiders. In both cases, there is fear of a hidden agenda. And in both cases, there is some apparent danger that the profession is allowed to largely regulate itself. Thus, according to critics, not only is CBA re-creating the mistakes of the past that have been wrought on unfortunate groups (including, but not limited to, gays and lesbians), but CBA represents dangerous, permanent and fundamental shifts in power, disenfranchising not just aggrieved populations, but everybody outside the conquering profession.

The critique that CBA is a structural shift is the most fundamental objection to CBA. If, as critics charge, it is impossible to make CBA accessible or to make it more neutral in its application, and impossible to refine it so that it takes better account of non-market environmental goods, then there is no point in trying. The prescription would be to abandon CBA altogether. At the same time, this structural argument makes the other arguments irrelevant. Making CBA more accessible by translating results into plain language is pointless because under a postmodernist critique, such an effort would inevitably cloak or even reinforce the inherent bias. Efforts by OIRA to make CBA more transparent are pointless and perhaps even perpetuate the illusion of neutrality. In the strongest form of environmental postmodernism, there is no legitimate role for CBA in environmental law- and policy-making.

3. Do the Environmental Postmodernists Have a Point About CBA?

One need not be an environmental postmodernist to accept that CBA has been manipulated, or even that fixing CBA faces some fairly daunting

87. FOUCAULT, *POWER/KNOWLEDGE*, *supra* note 66, at 82.

epistemological challenges. Examples abound.⁸⁸ In many cases, the environmental postmodernists would appear to have a point.

Not only that, but rifts within the economic profession seem to show that some economists really do behave in ways that postmodernists predict. Some economists try to create differentiations of reputation among economists in attempting (in their view) to safeguard the credibility of economics. One of the most prominent and perhaps the most important internecine battles pertains to a disagreement over the last decade over the economic cost of greenhouse gas emissions. The “social cost of carbon,” the harm avoided from reducing greenhouse gas emissions, is the figure representing the benefit side of a CBA for policies to address climate change. Yale economist William Nordhaus, one of the first economists to even consider the costs of climate change, sparred sharply with British economist Nicholas Stern, the author of the *Stern Review on the Economics of Climate Change*.⁸⁹ Stern’s opinion that the social cost of carbon was about \$85 per ton of CO₂⁹⁰ contrasted with Nordhaus’s estimates, which ranged from about \$2.50 per ton⁹¹ to an updated estimate of \$7.40 per ton.⁹² A number of differences in assumptions underlie the vast difference in estimates, but the one that most accounts for the difference is Stern’s use of an unusually low discount rate and Nordhaus’s use of a higher, more traditional one.⁹³ Uncertainty about future conditions uncontroversially justifies *some* discounting of future costs and benefits, but how much? Despite the entreaties of Nordhaus and others that choice of discount rate is a purely economic matter and that Stern was out of bounds for assuming such a low discount rate,⁹⁴ most economists seem to have accepted that, at

88. See *infra* text accompanying notes 124–26.

89. NICHOLAS STERN, STERN REVIEW ON THE ECONOMICS OF CLIMATE CHANGE, at i (2007), available at http://webarchive.nationalarchives.gov.uk/+http://www.hm-treasury.gov.uk/sternreview_index.htm.

90. *Id.* at 287.

91. WILLIAM D. NORDHAUS & JOSEPH BOYER, WARMING THE WORLD: ECONOMIC MODELS OF GLOBAL WARMING 91 tbl.4-10 (2000).

92. WILLIAM D. NORDHAUS, A QUESTION OF BALANCE: WEIGHING THE OPTIONS ON GLOBAL WARMING POLICIES 15 (2008) [hereinafter NORDHAUS, A QUESTION OF BALANCE].

93. See, e.g., Thomas Sterner & U. Martin Persson, *An Even Sterner Review Introducing Relative Prices into the Discounting Debate*, 2 REV. ENVTL. ECON. & POL’Y 61, 64 (2008) (“In fact, much of the criticism of the *Stern Review* has focused . . . on the low discount rate used in the analysis . . .”); Daniel H. Cole, *The Stern Review and Its Critics Implications for the Theory and Practice of Benefit-Cost Analysis*, 48 NAT. RESOURCES J. 53, 66 (2008) (“[T]he *Stern Review*’s choice of a very low ρ , more than any other factor, explains why the *Stern Review*’s results differ so dramatically from those of other climate change [benefit-costs analyses] . . .”).

94. See, e.g., Gary Yohe, *Some Thoughts on the Damage Estimates Presented in the Stern Review—An Editorial*, 6 INTEGRATED ASSESSMENT J. 65, 66–67 (2006); Gary W. Yohe & Richard S.J.

least for climate change, there is no universally correct discount rate and that discounting over such long-time horizons necessarily involves the incorporation of some social values. Most economists would view Stern's discount rate to be as valid as Nordhaus's.⁹⁵

The dispute gets interesting because Nordhaus has not just been critical of Stern, but has questioned his motivations and his sophistication. Nordhaus wrote in a critique published in the *Journal of Economic Perspectives*, that the *Stern Review* is essentially "political in nature and has advocacy as its purpose."⁹⁶ Fellow economists Gary Yohe and Richard S.J. Tol wrote that the *Stern Review* "subjected academic standards to political goals."⁹⁷ Tol even remarked to a BBC reporter:

If a student of mine were to hand in [the *Stern Review*] as a Masters thesis, perhaps if I were in a good mood I would give him a 'D' for diligence; but more likely I would give him an 'F' for fail.⁹⁸

Another tenet of economics is that it strives to be just descriptive, rather than prescriptive.⁹⁹ Nordhaus believes that his work is descriptive,

Tol, *The Stern Review Implications for Climate Change*, 49 ENV'T 36, 39 (2007) (discussing problems associated with Stern's use of "a very low discount rate").

95. The subject of discounting is extremely complicated and controversial. See, e.g., Kenneth J. Arrow et al., *How Should Benefits and Costs Be Discounted in an Intergenerational Context? The Views of an Expert Panel*, RESOURCES FOR FUTURE DISCUSSION PAPER 12-53, at 8 (Dec. 2012), available at <http://www.rff.org/RFF/Documents/RFF-DP-12-53.pdf> ("Many (but not all) of the panelists agree with Frank Ramsey that it is ethically indefensible to discount the utility of future generations, except possibly to take account of the fact that these generations may not exist Stern (2006), for example, assumes that the hazard rate of extinction of the human race is 0.1 percent per year."); see also Lawrence H. Goulder & Robertson C. Williams, *The Choice of Discount Rate for Climate Change Policy Evaluation*, RESOURCES FOR FUTURE DISCUSSION PAPER 12-43, at 2, 12, 14 (Sept. 2012) <http://www.rff.org/RFF/Documents/RFF-DP-12-43.pdf> (comparing Stern's discount rate to Nordhaus's); Martin S. Feldstein, *The Social Time Preference Discount Rate in Cost Benefit Analysis*, 74 ECON. J. 360, 360 (1964) ("Choosing between alternative time-streams of social benefits and costs is one of the most difficult and most important problems in the evaluation of public investment projects."); Paul R. Portney & John P. Weyant, *Introduction to DISCOUNTING AND INTERGENERATIONAL EQUITY* 1, 4 (Paul R. Portney & John P. Weyant eds., 1999) ("[T]hose looking for guidance on the choice of a discount rate could find justification for a rate at or near zero, as high as 20% and any and all values in between.").

96. William D. Nordhaus, *A Review of the Stern Review on the Economics of Climate Change*, 45 J. ECON. PERSP. 686, 688 (2007).

97. Yohe & Tol, *supra* note 94, at 39.

98. Simon Cox & Richard Vadon, *Running the Rule Over Stern's Numbers*, BBC NEWS (Jan. 26, 2007), <http://news.bbc.co.uk/2/hi/science/nature/6295021.stm>.

99. See, e.g., Francesco Parisi, *Positive, Normative and Functional Schools in Law and Economics*, 18 EUR. J. LAW & ECON. 259, 261 (2004) (describing the prescriptive limitations of economists' work) ("While the economist's perspective could prove crucial for the positive analysis of the efficiency of alternative legal rules and the study of the effects of alternative rules on the distribution

while Stern's is prescriptive and conflates economic analysis with lower forms of knowledge, akin to "ethical ideals":

Analyses are sometimes divided between the "descriptive approach," in which assumed discount rates should conform to actual political and economic decisions and prices, and the "prescriptive approach," where discount rates should conform to an ethical ideal, sometimes taken to be very low or even zero. . . . The Stern Review takes the prescriptive approach in the extreme¹⁰⁰

Putting aside the implausibility of a professor issuing a failing grade to a project such as the *Stern Review*, this is fodder for postmodernists because the level of vitriol suggests a level of excitement not often seen among practitioners of the dismal science. What are Nordhaus, Yohe, Tol, and others so excited about? They are concerned not only about methods and practice, but a stark and threatening divergence from a fundamental economic practice. If discount rates can be varied as widely as Stern's review suggests, then CBAs can be anything, and if CBAs can be anything, then the currency of economics is at risk. The response of Nordhaus and other economists is to rush to defend a practice of economics. Nordhaus's dismissal of the *Stern Review* as "political advocacy," and Tol's mock grade of the *Stern Review* are not only attempts to separate themselves from Stern, but to degrade Stern's standing in the economic profession.

As Sheila Jasanoff chronicles in her prescient book, *The Fifth Branch*,¹⁰¹ a profession will do "boundary work" to restrict entry into the profession, thereby limiting those with privilege to invoke the authority of the profession.¹⁰² Economists racing to castigate Stern are concerned in the first instance with the prestige and exclusiveness of the economics profession and its privileged voice in public policy. Castigating Stern's work as "ethical," "political," "prescriptive," worthy of a grade of "D" or "F" is an attempt to police the boundaries of economics, and an attempt to place Stern on the outside, in the interests of maintaining the authorities of those inside. Perhaps the likes of Nordhaus and Tol simply suffered from moments of ill temper, but there is enough recurrence on their parts to suggest otherwise. Perhaps they are policing the boundaries they perceive

of wealth and income, economists generally recognized the limits of their role in providing normative prescriptions for social change or legal reform.").

100. William Nordhaus, *Critical Assumptions in the Stern Review on Climate Change*, 317 SCIENCE 201, 202 (2007).

101. SHEILA JASANOFF, *THE FIFTH BRANCH: SCIENCE ADVISORS AS POLICYMAKERS* 14 (1990).

102. *Id.*

to define sound economics. That is *exactly* what Foucault would have predicted.

But environmental postmodernists claim too much when they extrapolate this kind of behavior into the grander claim that there is a conspiracy at work. Ignoring the many internal tensions inside economics, they mistakenly cast the economic profession as a monolith with a clearly defined, anti-regulatory objective in mind. Some postmodernists may be surprised to learn how many economists would agree with the contention that economics is flawed with respect to its application to environmental problems. Good economists would concede that much gets lost in the simplifying assumptions that are made in the course of a CBA.¹⁰³ And good economists would also concede that, even as they try their best to avoid using economic jargon themselves, economics does in fact involve a different set of terms.¹⁰⁴

Another important divergence between the Stern camp and the Nordhaus camp, one that gives credence to postmodernists who claim a structural bias in CBA, is their disagreement over the valuation of nonmarket impacts. Part of what made Stern's estimates higher than Nordhaus's¹⁰⁵ is Stern's attempt to incorporate some hard-to-value non-market impacts from climate change, such as the loss of biological diversity and impacts on human health.¹⁰⁶ Without denying the importance of these impacts, Nordhaus finds these impacts speculative.¹⁰⁷ Adherents of this view would omit non-market environmental and ecological impacts as better than taking a good-faith, but poorly executed, attempt to quantify them. There is something arbitrary, under that view, of making a bad attempt at quantification, that smacks of making something up.

Were that the prevailing view, then of course the environmental postmodernists would be correct in arguing there is a systemic bias against environmental and ecological values in CBA, at least with respect to

103. See, e.g., Winston Harrington, Lisa Heinzerling & Richard D. Morgenstern, *Controversies Surrounding Regulatory Impact Analysis*, in REFORMING REGULATORY IMPACT ANALYSIS 10, 13 (Winston Harrington et al. eds., 2009) ("Most economists would acknowledge that CBA does not incorporate all factors that can and should influence judgments on the social worth of a policy and that individual preference satisfaction is not the only criterion."); RICHARD A. POSNER, *ECONOMIC ANALYSIS OF LAW* 17 (Erwin Chemerinsky et al. eds., 6th ed. 2003).

104. See, e.g., Don Fullerton & Robert Stavins, *How Economists See the Environment*, NATURE, Oct. 1998, at 433, 433 ("Economists themselves may have contributed to some misunderstandings about how they think about the environment . . . perhaps simply by the use of jargon.").

105. NORDHAUS, A QUESTION OF BALANCE, *supra* note 92, at 93.

106. STERN, *supra* note 89, at 143, 422 (including estimates of non-market impacts, which he describes as "impacts on the environment and human health," which would include impacts on wildlife and unpriced effects on human health, such as increased spread of disease due to climatic changes).

107. NORDHAUS, A QUESTION OF BALANCE, *supra* note 92, at 182.

climate change. But that is not the prevailing view. Staying within a traditional neoclassical economic tradition, Harvard economist Martin Weitzman has written one of the most influential papers of all, warning of the limitations of CBA due to the “thick-tailed” statistical distribution of damage probabilities.¹⁰⁸ Swedish environmental economist Thomas Sterner has written about the need to account for the possibility that environmental goods could be so scarce in a climate-changed world that traditional CBAs would systemically underprice environmental damages.¹⁰⁹ Most revealing is that while Nordhaus’s writings remain influential, his estimates of the social cost of carbon are clearly on the low side of an economic literature that has become quite crowded with estimates of the costs of climate change.¹¹⁰

It is perhaps puzzling that postmodernism has taken such a long time to mount an attack on economics, and that it has come in the form of apparently unwitting, accidental postmodernists. The older, French postmodernism closer to Foucault clearly attacked the sciences. While economists consider themselves social scientists, with an empirical tradition similar to the physical, biological, and medical sciences,¹¹¹ they have clearly not achieved the universality, concrete falsifiability, and experimental verification methods achieved by their more respectable, cross-campus colleagues.¹¹² Moreover, economists have stubbornly maintained a habit of being intellectually insular and have guarded their boundaries vigorously. And although economists profess neutrality, it is at least superficially plausible that economics has been used to justify

108. Martin Weitzman, *A Review of the Stern Review on the Economics of Climate Change*, 45 J. ECON. LITERATURE 703, 704 (2007). Weitzman has argued that traditional CBAs, which assume a normal distribution of damage probabilities, might not be appropriate for climate change, in which the unlikely but catastrophic outcomes of climate change are so costly that their representation on a statistical distribution should be “thicker” than that allowed by a normal distribution. *Id.* at 710, 717.

109. Sterner & Persson, *supra* note 93, at 62.

110. See, e.g., INTERAGENCY WORKING GROUP ON THE SOCIAL COST OF CARBON, UNITED STATES GOVERNMENT, TECHNICAL SUPPORT DOCUMENT: TECHNICAL UPDATE OF THE SOCIAL COST OF CARBON FOR REGULATORY IMPACT ANALYSIS UNDER EXECUTIVE ORDER 12866, at 13 tbl.2 (2013), available at <http://www.whitehouse.gov/sites/default/files/omb/assets/infocoreg/technical-update-social-cost-of-carbon-for-regulator-impact-analysis.pdf> (showing the federal government’s estimates); Arrow et al., *supra* note 95, at 8 (showing an expert panel’s estimates); Goulder & Williams, *supra* note 95, at 1 (showing policy analysts’ estimates).

111. See *supra* note 84 and accompanying text.

112. See, e.g., C.S. LEWIS, *THE SCREWTAPE LETTERS: A DEVIL’S DIABOLICAL ADVICE FOR THE CAPTURING OF THE HUMAN HEART* 10 (Am. Reprint Co. rev. ed. 1982) (1942) (“There have been sad cases among the modern physicists. If he must dabble in science, keep him on economics and sociology . . . [T]he best of all is to let him read no science but to give him a grand general idea that he knows it all . . .”).

increasing gaps in power, wealth, and justice¹¹³—typically a central concern to postmodernists.¹¹⁴ So one would think that economics would long have been a tempting target for postmodernist disgruntlement. Instead, postmodernists seem to have avoided economics altogether.

In a widely cited review of postmodernism and the social sciences, postmodern scholar Pauline Marie Rosenau addresses postmodern engagement with history, geography, women's studies, public administration, sociology, anthropology, political science, and psychology¹¹⁵—but not economics. It has instead fallen to several environmental law professors to marshal an epistemological attack on economics. Environmental postmodernists, in seizing on a reform movement revolving around CBA, have grasped that the economic profession is an ascendant threat to public policymaking. Whether economics improves public policy or not, it does seem poised to intellectually *displace* other approaches, including that of environmental lawyers.

Environmental postmodernists have a weapon that they do not appear to have utilized yet: evolutionary psychology. Jonathan Haidt, in his acclaimed book *The Righteous Mind*, argues that people do not naturally employ reason to reach a conclusion, but they overwhelmingly tend to have an emotive reaction and *subsequently* come up with a rationalization to support it.¹¹⁶ Haidt has on his side the evolutionary biology giant, Edward O. Wilson, who predicted in the 1970s that science would come around to recognizing that evolution not only shaped physiology but also human behavior. What has indeed come to pass is a body of neurological and psychological research centering upon the parts of the human brain that process emotional reactions.¹¹⁷ Researchers now know that certain reactions having to do with what people consider moral issues activate these emotional centers of the brain. Different cultures generate different moralities, of course, but the cognitive sequence, Haidt concludes, is remarkably similar across a variety of cultures: Intuitions come first, reasoning follows behind.¹¹⁸ Furthermore, persuading others requires an appeal not to the reasoning faculties of others, but to their intuitions. Remarkably rarely does human reasoning feedback change some sort of a

113. POSNER, *supra* note 103, at 27 (“Another recurrent criticism of the economic approach to law—although it is better described as a reason for the distaste with which the subject is regarded in some quarters—is that it manifests a conservative political bias.”).

114. LYOTARD, *supra* note 18, at 5.

115. ROSENAU, *supra* note 25, at vii–viii.

116. JONATHAN HAIDT, *THE RIGHTEOUS MIND* 70–71 (2012).

117. *Id.* at 67.

118. *Id.* at 70–71.

judgment about a disputable fact.¹¹⁹ Why do people do this? The evolutionary psychological story is that reasoning faculties have developed to serve human purposes that are not necessarily related to what we would consider “truth.” They have emerged, for example, so people can obtain power.¹²⁰ Postmodernists are more correct than they ever bothered to realize when they argue that most objective-seeming presentations are really just a patina for a power play.

If this is true, then it becomes perfectly plausible that CBA is a post-hoc rationalization to justify anti-regulatory biases. Professor Farber’s observations of how partisan former OIRA directors have really been ideologues¹²¹ feed perfectly into an evolutionary psychological story of how the morality of industrial development has driven the emergence of a new rationalization strategy called CBA.

But this account—that CBA is just a coordinated power grab—is implausible. For one thing, there are signs that regulated interests are beginning to sour on CBA, as more and more CBA analyses begin to show the benefits of regulation, such as in the area of climate policy.¹²² Moreover, in order for this account to be true, all the work spent on refining and debating CBA would have to be explained away as mere show. The degree of domestic squabbling makes this implausible. Revesz and Livermore, while arguing for greater utilization of CBA, acknowledge its failures and propose several reforms in their book.¹²³ Along the way, they pointedly note that under the directorship of John Graham, CBAs at OIRA only counted unanticipated increases in risks from regulation, but not unanticipated decreases in risks from regulation.¹²⁴ This one-sidedness is not only revealing, it also introduces potentially huge error. For example, reductions in sulfur dioxide achieved huge unanticipated benefits, not from the expected reductions in acid rain, but from the health benefits of reduced

119. *Id.* at 44–51.

120. *Id.* at 88–91.

121. Farber, *supra* note 53, at 1362.

122. Michael A. Livermore & Richard L. Revesz, *Environmental Law and Economics*, in OXFORD HANDBOOK OF LAW AND ECONOMICS (Francesco Parisi ed.) (forthcoming) (manuscript at 9), available at <http://ssrn.com/abstract=2388883>.

123. REVESZ & LIVERMORE, *supra* note 48, at 151–61 (discussing institutional hurdles to debiasing CBA).

124. *Id.* at 58–60 (arguing that often countervailing risks are given more weight than ancillary benefits).

fine particulate matter,¹²⁵ which were not quantified at the time of regulation and not considered until relatively recently.¹²⁶

The volume of work dedicated to refining CBA is also hard to explain as part of a conspiracy. Daniel Cole proposes the convening of a National Academy of Sciences panel to develop a set of best practices that should be expected of any CBA issued in support of or against a proposed regulation.¹²⁷ In my other work, I build upon Professor Cole's idea by proposing the institution of "citizen prompt letters," which would enable individuals to issue calls for regulation on the basis of CBAs conforming to a well-established set of best practices.¹²⁸ Matthew Adler has taken on the distributional critiques and proposed weighting measures in CBA to assign the welfare of poorer households a greater influence over the outcome of CBAs,¹²⁹ a proposal that has yet to provoke any reaction from environmental postmodernists.

The environmental postmodernist challenge to CBA and its economic underpinnings has thus served a function, though not one that the environmental postmodernists had in mind. If the goal of environmental postmodernism was to rid the world of CBA, they have thus far failed. Instead, in their urgency to exterminate CBA, environmental postmodernists have helped bring about a healthier debate about the practice and role of CBA. Foucault would have been disappointed.

B. The Postmodernist Challenge to Science in Environmental Lawmaking

Traditional, post-structuralist postmodernist theorists have historically had deep suspicions of the hard sciences, owing in part perhaps to Foucault's run-ins with the psychiatric and medical professions. But what Foucault only implied about scientific inquiry, Jean-Francois Lyotard charged much more bluntly. For Lyotard, developments in science in the mid- to late-twentieth century portended not a new enlightenment, but

125. Richard Schmalensee & Robert N. Stavins, *The SO₂ Allowance Trading System: The Ironic History of a Grand Policy Experiment*, J. ECON. PERSP. (forthcoming) (manuscript at 5), available at <http://ssrn.com/abstract=2124037>.

126. See, e.g., Francine Laden et al., *Reduction in Fine Particulate Air Pollution and Mortality Extended Follow-up of the Harvard Six Cities Study*, 173 AM. J. RESPIRATORY & CRITICAL CARE MED. 667 (2006) (extending mortality follow-up from previous studies to 1998 to examine changes in fine particulate air pollution).

127. Daniel Cole, *Best Practice' Standards for Regulatory Benefit-Cost Analysis*, 23 RES. LAW & ECON.: J. POL'Y 1, 3 (2007).

128. Shi-Ling Hsu, *The Identifiability Bias in Environmental Law*, 35 FLA. ST. U.L. REV. 433, 497-99 (2008).

129. MATTHEW D. ADLER, *WELL-BEING AND FAIR DISTRIBUTION* 137-45 (2012).

simply a shift from one power-grabbing discourse to another.¹³⁰ To Lyotard, scientists were just part of another special interest group on the take; science was just another false objectivity created as a lever of power.¹³¹

Environmental postmodernists might not go quite so far. It is not so much that environmental postmodernists would do away with science altogether (as they might with economics). No one would argue that a rule to regulate a pesticide or chemical should be driven solely by personal values, devoid of any scientific input. But environmental postmodernists have sounded the alarm over the pseudo-science that has hijacked the environmental rule-making process. In that sense, there is a great deal of ideological science in the public realm, and we are cautioned to not believe everything we hear that bears the label “science,” or “sound science.” Science, like economics, is infected by powerful industrial interests. Lisa Heinzerling, in reviewing the book *Bending Science*,¹³² writes:

Science—the discipline so many of us trust to come clean with us, to treat us squarely—has not escaped the contagion. Indeed, in *Bending Science*, Professors Thomas McGarity and Wendy Wagner detail just how thoroughly and insidiously the scientific process can be—and repeatedly has been—“bent” to produce results consistent with economic or ideological motives.¹³³

Thomas McGarity and Wendy Wagner’s book *Bending Science* chronicles the ways in which science has been misrepresented in court, and by legislatures and regulatory agencies, to suit a narrow private agenda and thwart a broader public interest.¹³⁴ Significantly, McGarity and Wagner find not only well-resourced regulated industries engaging in such shenanigans, but also plaintiffs’ lawyers handling personal injury cases.¹³⁵ But while plaintiffs’ lawyers extract undeserved judgments and settlements, by far the bigger problem is the widespread harm imposed by regulated industries producing chemicals and pharmaceutical products consumed by or exposed to an oblivious general public. Postmodern or not, it is a disquieting read. Environmental postmodernists are very often right to sound the alarm. The point of this Article is not to debunk environmental postmodernism, but to

130. LYOTARD, *supra* note 18, at 30.

131. *Id.*

132. THOMAS O. MCGARITY & WENDY E. WAGNER, *BENDING SCIENCE: HOW SPECIAL INTERESTS CORRUPT PUBLIC HEALTH RESEARCH* (2008).

133. Lisa Heinzerling, *Violent Science*, 87 TEX. L. REV. 623, 623 (2009).

134. MCGARITY & WAGNER, *supra* note 132, at 2.

135. *Id.* at 80.

observe how we go about settling the difficult epistemological issues that inevitably arise in complex environmental problems. McGarity and Wagner are accidental postmodernists because they pose concerns with the authority of science as it is presented in the regulatory context.

But that begs the question of exactly how lawmaking can effectively incorporate science, given the failures thus far. Unsurprisingly, some of the proposed solutions suggested by McGarity and Wagner require lawyers. But some of their proposals are aimed at greater transparency. Transparency measures deserve more attention, as it is hard to see why anyone, even a postmodernist, would object to greater transparency.

While environmental postmodernists opposing CBA have almost exclusively been environmental advocates and lawyers, those agitating over the role of science in public policy have been more diverse. Significantly, a group of people skeptical of the urgency of climate change (commonly labeled as “climate skeptics”) have complained bitterly about how the science of climate change has been hijacked by climate scientists and used to promote an agenda of environmental extremism. I consider much of this movement environmentally postmodern. Consistent with postmodernist tendencies, climate skeptics have argued that a hidden agenda is at work: Not only does a left-wing faction wish to promote a climate agenda, but also one of environmental radicalism with a hidden agenda. Climate change is just a Trojan horse by which radical environmentalists hope to achieve a broader political victory.¹³⁶

At bottom, both economics and science are inaccessible to most laypersons, including lawyers. Knowledge is power, and when an information asymmetry exists, one can expect it to be exploited for private gain. CBA is inaccessible to non-economists, and the postmodern view is that certain economists exploit this esoteric knowledge for a narrow private gain. Science can also be inaccessible, even among peer scientists—this is the complaint of environmental postmodernists. If conducted unscrupulously and opaquely, a broader scientific community can be as disenfranchised as laypersons. The environmental postmodern objection is thus concerned with the power imbalance that is generated by an information imbalance. Even among experts, a scientific metanarrative can run amok.

This section sets out what environmental postmodernism has to say about science in the regulatory context. It draws heavily upon and critically analyzes Wagner’s earlier work on toxic risk regulation, *The Science*

136. See *infra* note 202 and accompanying text.

Charade in Toxic Risk Regulation,¹³⁷ and other seminal works examining the role of science in public policy, including Sheila Jasanoff's *Fifth Branch*.

1. Funding Science to Bend It

One of the more troubling problems reported by McGarity and Wagner involves the potential for funding considerations to influence the outcome of scientific studies or, worse still, to completely drive the direction and outcome of entire programs of scientific research.¹³⁸ Their compilation of stories of manipulation paints a grim picture of the role of science in the public lawmaking process: how private firms attacked the integrity and competence of scientists presenting inconvenient health and environmental research; how they otherwise managed to hide inconvenient research; how they used public relations strategies to “spin” research; and how they used their resource advantage to create entire research agendas friendly to their industrial interests.¹³⁹ Their work in turn builds upon work by Sheila Jasanoff, who first critically examined the ways in which science was used as an input into public lawmaking processes.¹⁴⁰

Empirical research unambiguously shows that industry-sponsored research is more likely to produce results favorable to the sponsoring industry than independently funded research.¹⁴¹ This is intuitive and unsurprising. But the problem identified by environmental postmodernists is much wider and more profound. Sponsorship of individual research projects is too clumsily overt. So regulated industries set up shop completely outside of the traditional academy of research and recruit scientists by offering better pay.¹⁴² Pharmaceutical companies, for example, can avoid the scrutiny and disclosure requirements imposed by universities and medical schools by contracting directly with medical researchers.¹⁴³ On the trend towards sponsored research more generally, McGarity and Wagner write:

137. Wendy E. Wagner, *The Science Charade in Toxic Risk Regulation*, 95 COLUM. L. REV. 1613, 1617–19 (1995) [hereinafter Wagner, *Science Charade*].

138. MCGARITY & WAGNER, *supra* note 132, at 80.

139. *Id.* at 60–204.

140. JASANOFF, *supra* note 101, at 14.

141. MCGARITY & WAGNER, *supra* note 132, at 22 (citing Justin E. Bekelman, Yan Li, & Cary P. Gross, *Scope and Impact of Financial Conflicts of Interest in Biomedical Research*, 289 J. AM. MED. ASS'N 454, 455 (2003)).

142. *Id.* at 84 (“By generously supporting a small cadre of scientists whose work supports their economic interests, sponsors succeed in shaping science by increasing their productivity, potentially well beyond what it would have been without that support.”).

143. *Id.* at 69.

Taking full advantage of the opportunity that sponsored research offers to call the piper's tune, manufacturers occasionally pool their resources in "research centers" that are structured to fund a number of individual research projects. The centers typically resemble government research agencies or private foundations, and they often employ the traditional model of soliciting and approving research proposals from interested researchers in academia or the private sector.¹⁴⁴

With these sponsored research enterprises bearing a resemblance to non-profit, non-partisan, and philanthropic research organizations, it becomes difficult for the consuming public and lawmakers to discern the objectivity and legitimacy of science. As McGarity and Wagner point out, it does not matter if this science is so manipulated that it ceases to be science; what matters is that policymakers and the general public are unable to discern the difference.¹⁴⁵

A world and a generation away, post-structuralist postmodernists have long been lamenting that funding pressures have always driven science. Even Rene Descartes ran into funding problems.¹⁴⁶ And the more general concern with the subtler influences of money was first articulated by Lyotard before being chronicled by McGarity, Wagner, and Jasanoff:

Capitalism solves the scientific problem of research funding in its own way: directly by financing research departments in private companies, in which demands for performativity and recommercialization orient research first and foremost toward technological "applications"; and indirectly by creating private, state, or mixed-sector research foundations that grant program subsidies to university departments, research laboratories, and independent research groups with no expectation of an immediate return on the results of the work¹⁴⁷

That money talks is hardly news, and the collision of influence peddling with the ascendance of science as an input into public lawmaking has perhaps been inevitable for a long time. Postmodernists do not have a monopoly on this worry. But the environmental postmodern objection is more developed than simply "the fix is in." The environmental postmodern

144. *Id.* at 80.

145. *Id.* at 59.

146. LYOTARD, *supra* note 18, at 44–45 ("By the end of the *Discourse on Method*, Descartes is already asking for laboratory funds. . . . No money, no proof—and that means no verification of statements and no truth.").

147. *Id.* at 45.

objection highlights structural factors that would elude the simpler rent-seeking accounts.¹⁴⁸ It is the relationship between power and false objectivity that is the hallmark of postmodern agitation. Financial influences and public choice theory may explain the reason for rent-seeking, but postmodernism can explain the more interesting mechanism by which it is accomplished.

2. Science Wielding Power

The postmodern account is about power masquerading as authority. The authority can be the promise of neutrality. The authority of science, however, derives from its promise of knowledge of a greater universality. Gravitational forces are the same no matter where on earth they are tested; aspirin works on people of all races, cultures, and ages. The replicability of scientific “facts” is what makes scientific predictions reliable and useful for public lawmaking. Answers about the harmfulness of a toxic chemical need to be correct and need to be applicable to a wide range of humans or other life forms.

For a postmodernist, the esoteric nature of scientific knowledge creates a power imbalance. The power imbalance derives from the implicit authority of scientists to define their own domain. Fortunately for scientists, the vast majority of the world is ill-equipped to challenge scientists on their claims.¹⁴⁹ But in order for the knowledge imbalance to translate into a power imbalance, scientists must establish that their knowledge is *better* than other forms of knowledge. If an environmental activist expresses a fear

148. “Rents” are meant in economic parlance to be those *excess*, or above-normal returns on some asset. Rents are understood to exist in all kinds of markets, but most accounts of rent-seeking posit that law and government policy create rents, and rent-seeking is the attempt by private parties to capture those rents. *See, e.g.*, Robert D. Tollison, *Rent-Seeking: A Survey*, 35 KYKLOS 575, 575–76 (1982) (defining “rent” and “rent-seeking”). A common premise is that rent-seeking is an activity that involves some distortion of government policy so that private rents are increased, but social welfare is decreased. Such is the case when private firms lobby government bodies and officials for policy favorable to a private interest that is not necessarily social welfare increasing. Lobbying is the paradigmatic rent-seeking activity and sometimes takes on the even less savory activity of outright bribery. *See, e.g.*, Kevin M. Murphy, Andrei Schleifer, & Robert W. Vishny, *Why Is Rent-Seeking So Costly to Growth?*, 83 AM. ECON. REV. 409, 409 (1993) (“[R]ent-seeking, particularly public rent-seeking by government officials, is likely to hurt innovative activities more than everyday production. Since innovation drives economic growth, public rent-seeking hampers growth more severely than production.”); Anne O. Krueger, *The Political Economy of the Rent-Seeking Society*, 64 AM. ECON. REV. 291, 291–92 (1974) (discussing rent-seeking activities, “including bribery, hiring relatives of officials or employing the officials themselves”).

149. Sheldon Ungar, *Knowledge, Ignorance and the Popular Culture: Climate Change Versus the Ozone Hole*, 9 PUB. UNDERSTANDING SCI. 297, 302 (2000). Jasanoff reported that 80% of the American general public lacks a working knowledge of basic science. JASANOFF, *supra* note 101, at 209 (citing NAT’L SCI. BD., SCIENCE & ENGINEERING INDICATORS 200 (1993)).

that a certain pesticide will cause him harm, a scientific response must resort to something more universal than fear. Scientists will, in the postmodern account, helpfully remind us that they have a better, more universal, and more reliable form of knowledge:

The scientist questions the validity of narrative statements and concludes that they are never subject to argumentation or proof. He classifies them as belonging to a different mentality: savage, primitive, underdeveloped, backward, alienated, composed of opinions, customs, authority, prejudice, ignorance, ideology. Narratives are fables, myths, legends, fit only for women and children. At best, attempts are made to throw some rays of light into this obscurantism, to civilize, educate, develop.¹⁵⁰

Polemics aside, this is a consistent theme in French postmodernism. As noted in Part II.A.2 above, French postmodernists are clearly fixated on a perceived condescension from certain professional groups.¹⁵¹ But this condescension has a purpose: The higher platform must be defended from intruders. Maintaining authority requires policing the boundaries of what is “science” and what is not. As discussed above, Sheila Jasanoff explores the role of “boundary work,” in which scientists define the boundaries of their expertise, and more significantly, their membership, which enjoys exclusive license to practice under the authority of their subfields of science.¹⁵² This boundary drawing is fundamental because only by limiting entry into a group can the group preserve its credibility, maintain sufficient opaqueness to preserve its authority, and maintain the ability to control the output of its members. Central to the concern with the capture of science raised by environmental postmodernists are the function of scientific communities as their own gatekeepers and the willingness of modern societies to allow them a fair amount of autonomy in policing their own ranks. Left to effective self-regulation,¹⁵³ scientific communities can create and maintain authority simply by restricting entry into their ranks.

While the postmodern attack on science tends to be not so much on the professional scientists themselves but on the way that they have fallen prey to outside influences, the environmental postmodern complaint clearly identifies the existence of a subset of scientists that have been allowed to wield power under the banner of their scientific subfields. These renegade

150. LYOTARD, *supra*, note 18, at 27 (internal citations omitted).

151. *See supra* Part II.A.2.

152. JASANOFF, *supra* note 101, at 14. Jasanoff credits sociologist Thomas Gieryn with coining the phrase “boundary work” and making the initial identification and analysis of the practice. *Id.*

153. MCGARITY & WAGNER, *supra* note 132, at 46.

scientists may not constitute a majority in their scientific subfields, but they are likely to wield outsized influence over the science that is deployed in a public lawmaking process. McGarity and Wagner focus on applied research that is narrowly directed toward specific applied questions of policy relevance—what they call “policy-relevant science”¹⁵⁴ and what Jasanoff calls “regulatory science.”¹⁵⁵ The reason that special interest groups are able to capture policy-relevant science is because it tends *not* to be the kind of cutting-edge science for which scientists are rewarded with recognition within the academy. So the best researchers do not tend to gravitate towards policy-relevant science.¹⁵⁶ At the same time, special interest groups *are* intensely interested in policy-relevant science, and are willing to expend significant resources to develop it and to “bend” it to suit their private ends.¹⁵⁷ So “the boring work of pesticide toxicity testing” is left to those who will do science for pay.¹⁵⁸ Scientific communities thus become cleaved into policy-relevant science and everything else, and it is this former sub-realm of science that becomes the instrument of special interest groups.

How do policy-relevant scientists wield power? Like other closed shops, they do boundary work, restrict their membership, and control their messaging to maintain authority in the public lawmaking process. Despite the fact that those performing policy-relevant science are nominally members of a larger and more legitimate scientific community, the low academic stakes of policy-relevant science drives out potential dissenters. Top researchers who are truly independent shy away from peer review of policy-relevant research, as not only is it of low academic interest, but it is vigorously policed by interested parties. A negative review can be expected to be met by venomous attacks that injure the reputation of the researcher. The regular practice of attacking creates an *ex ante* disincentive to wade into a question over policy-relevant science.¹⁵⁹ The incentives are thus designed to drive out dissenters and maintain a tightly knit scientific sub-community with a narrow special purpose. In this and other ways, policy-relevant scientists carefully control their messaging.

Discrediting scientists who dare to interfere with the science-messaging mission is child’s play for an organized group. Simply spinning and labeling are important strategies for sowing doubt about certain

154. *Id.* at 11.

155. JASANOFF, *supra* note 101, at 76–77.

156. MCGARITY & WAGNER, *supra* note 132, at 47.

157. *Id.* at 60–96.

158. *Id.* at 49.

159. *Id.* at 160.

research and certain people.¹⁶⁰ The label “junk science” has been used to devastating effect, while appeals to “sound science” are applied to advance favored results.¹⁶¹ The postmodernist insight is that this is about drawing boundaries and implicitly creating a power differential: Those who do “sound science” are scientists, and those who peddle “junk science” are not. Scientists have authority; junk scientists do not.¹⁶²

The peer review process, intended to protect the integrity of science, can be similarly employed. The idea of peer review is that scientific research is only published after objective, disinterested, and expert reviewers give it a stamp of approval, certifying the quality and accuracy of the research findings.¹⁶³ But, as a postmodernist would confidently predict, like other mechanisms portrayed as objective and neutral, peer review becomes an instrument of power. The peer review process still requires the selection of reviewers, and the selection of friendly reviewers is always a strong possibility in the small intimate community of researchers.¹⁶⁴ Moreover, the lower public attention, shorter timelines and limited resources for the review of policy-relevant science all point to the susceptibility of the peer review process to be used as a tool.¹⁶⁵ Rather than the neutral gatekeeper that it was meant to be, peer review is, as environmental postmodernists submit, a way for a cadre of policy-relevant scientists to build and maintain “cognitive authority,” and to defend it from dissenters.¹⁶⁶

Perhaps most significantly for postmodernists, the peer review process is a mechanism for boundary line drawing. In fact, the primary function of peer review is to police the boundary between quality science and “junk science.” The peer review process is one in which editorial decisions can subtly or obviously influence outcomes.¹⁶⁷ In the policy-relevant world

160. Manufacturing companies discrediting scientists who make embarrassing scientific findings about their products has unfortunately become common. See, e.g., Rachel Aviv, *A Valuable Reputation*, NEW YORKER, Feb. 10, 2014, at 52, available at <http://www.newyorker.com/magazine/2014/02/10/a-valuable-reputation> (describing how an agribusiness company discredited science on the harmful effects of one of the company’s herbicides).

161. Wagner, *Science Charade*, *supra* note 137, at 1628.

162. *Id.*

163. Wendy E. Wagner, *The “Bad Science” Fiction: Reclaiming the Debate in the Role of Science in Public Health and Environmental Regulation*, 66 L. & CONTEMP. PROBS. 63, 95 (2003) [hereinafter Wagner, *The “Bad Science” Fiction*] (“Scientific peer review is supposed to consist of unbiased external review by those trained in the scientific method.”).

164. JASANOFF, *supra* note 101, at 81.

165. *Id.* at 82.

166. *Id.* at 83.

167. *Id.* at 68.

then, it would surprise no one that peer review is sometimes used to do the bidding for special interest groups seeking to discredit research.¹⁶⁸

The collective scientific illiteracy of the general populace¹⁶⁹ invites a power grab. Even for those that spend significant chunks of their professional life following the science of climate change, the problem still boils down to, as one science sociologist put it, “picking the experts you think you can trust.”¹⁷⁰ In fact, even lawmakers and administrators have found it necessary to allow scientists to self-govern. In such a situation, it is perhaps inevitable that policy-relevant scientists should wield power in a fashion predicted by postmodernists.

3. Science as a Social Construct

What makes science so indeterminate in a regulatory system so devoted to insuring its reliability?¹⁷¹ Bending with funding is possible because of a pervasive and unfortunate myth that science can be firewalled from the influences of politics and special interest groups seeking favorable regulatory policy. This myth, argue the environmental postmodernists, induces rational agencies, industrial interests, and even non-profit environmental organizations to seek to capture the exalted mantle of science to wield over the policy world.¹⁷² Were we to dispense with the myth that science somehow offers the objectivity needed to arbitrate policy disputes, then we could see science for what it is: just another social construct (goes the postmodern argument).

Wagner argues in her earlier work that when lawmakers mandate scientific input into lawmaking decisions, the nature of the input is really “trans-scientific”—inherently a blend of science and policy. Science in the public policy process is thus at least partially a social construct and representations of science as objective and free of influence are misleading.¹⁷³ Similarly, Jasanoff writes that “[w]e have become aware of the socially constructed nature of scientific reality and of the intermingling of facts and values in disputes arising at the frontiers of science.”¹⁷⁴ Sidney Shapiro and Christopher Schroeder describe the rise of a “post-empiricist”

168. MCGARITY & WAGNER, *supra* note 132, at 140.

169. *See supra* note 149 and accompanying text.

170. Ungar, *supra* note 149, at 297.

171. JASANOFF, *supra* note 101, at 2.

172. *Id.* at 12–13; MCGARITY & WAGNER, *supra* note 132, at 2–3.

173. Wagner, *Science Charade*, *supra* note 137, at 1619–28 (“Although trans-scientific questions cannot be answered by science, they generally appear to outside observers to be resolvable by contemporary science and thus are often mistaken for straightforward scientific questions.”).

174. JASANOFF, *supra* note 101, at vii.

movement, which questions whether science generates an objective description of reality.¹⁷⁵ The idea that science is somehow above the fray is thus a “myth.”¹⁷⁶

In fact, the traditional post-structuralist postmodernists posit exactly that. The French postmodernist tradition would tell us that it is a charade to separate the possession of specialized knowledge and the exercise of power. As Lyotard wrote:

[K]nowledge and power are simply two sides of the same question: who decides what knowledge is, and who knows what needs to be decided?¹⁷⁷

According to the postmodern account, if science is of epistemic value but is not freely available, then somebody has to decide when something is or is not “science.” This is French postmodernism packaged for the administrative state that relies on policy-relevant science. The account is strikingly similar to the claims made by Jasanoff, who wrote:

[S]cientific “facts” are, for the most part, socially constructed. We regard a particular factual claim as true not because it accurately reflects what is out there in nature, but because it has been certified as true by those who are considered competent to pass upon the truth and falsity of that kind of claim.¹⁷⁸

Thomas Kuhn’s *The Structure of Scientific Revolutions*¹⁷⁹ provides a seminal account of how and when wide bodies of scientific knowledge give way to new theories and scientific “facts.” Kuhn describes how beliefs by a critical mass of scientists can abruptly shift from one body of theory to another—giving rise to the popularized phrase “paradigm-shifting”—and change a field of science virtually overnight. It is this unnerving historically recurrent pattern that undermines claims that science presents bedrock knowledge.

Nor does the peer review process deliver the objectivity that lawmakers and the public have, perhaps unrealistically, come to expect from it. The inherent social construction of science renders the peer review process nearly impossible to scrub clean of bias. It is not so much the fraud, bias,

175. Shapiro & Schroeder, *supra* note 16, at 442–43.

176. Wagner, *Science Charade*, *supra* note 137, at 1628.

177. LYOTARD, *supra* note 18, at 8–9.

178. JASANOFF, *supra* note 101, at 12–13.

179. Thomas S. Kuhn, *The Structure of Scientific Revolutions*, in 2 INTERNATIONAL ENCYCLOPEDIA OF UNIFIED SCIENCE 8 (Otto Neurath et al. eds., Univ. of Chi. Press 2d ed. 1970).

sexism, institutional bias, and outright incompetence in peer review that are troubling,¹⁸⁰ it is the reality that the process and the outcomes of peer review are inextricably intertwined with social objectives.¹⁸¹

Environmental and post-structuralist postmodernists thus share skepticism of the deference bestowed upon scientists. The environmental postmodern account is more sophisticated than that offered up by post-structuralists, who have embarrassed themselves by revealing some fundamental misunderstandings of scientific concepts.¹⁸² But environmental postmodernists have (unconsciously) followed the lead of their post-structuralist forerunners in attempting to deconstruct scientific claims and blur the boundaries that scientists have worked hard to establish and maintain.

C. Environmental Postmodernism from Climate Skeptics

Recalling the origins of postmodernism—Foucault's struggles with powerful and prestigious medical and psychiatric professions—serves to underscore postmodernism's origins in anti-establishment, counter-trend tendencies.¹⁸³ This has struck a chord in an environmental movement that

180. See, e.g., Wagner, *The "Bad Science" Fiction*, *supra* note 163, at 95 ("Over the years, there has been considerable discontent with the peer-review process, much of it related to concern over the lack of objectivity of those doing the reviews. Even matters as seemingly insignificant as the affiliation or fame of the researcher can affect the outcome of peer reviews."). Many instances are chronicled by Sheila Jasanoff. See JASANOFF, *supra* note 101, at 61–83.

181. See JASANOFF, *supra* note 101, at 68 ("[E]ven in the bastions of scientific research and publication, peer review serves a mixed and multiple function. Although its primary purpose is to provide quality assurance, peer review is also used more or less consciously by both editors and granting agencies to further social objectives, from upholding a funding program's legislative mission to providing support for litigation.").

182. See, e.g., ALAN SOKAL & JEAN BRICMONT, *FASHIONABLE NONSENSE: POSTMODERN INTELLECTUALS' ABUSE OF SCIENCE* 7 (1998) ("[T]hese texts contain much more than mere 'errors': they display a profound indifference, if not a disdain, for facts and logic."). It should be noted that Sokal has a history of clashing with postmodernists, beginning with an article he submitted as a hoax to the postmodernist journal *Social Text* pretending to argue that physics was, just like literature, inherently subjectivist and just another "form of epistemic relativism." Alan Sokal, *Transgressing the Boundaries Towards a Transformative Hermeneutics of Quantum Gravity*, 14 *SOC. TEXT* 217 (1996). However, even more measured critics of postmodernism also take postmodernists to task for fundamental misunderstandings. See, e.g., BUTLER, *supra* note 20, at 37; SLINGERLAND, *supra* note 40, at 107–08 (mocking postmodernist Bruno Latour's idealized and misinformed understanding of Chinese history).

183. See, e.g., BUTLER, *supra* note 20, at 56 ("Postmodernists . . . adapt Foucauldian arguments to show the ways in which discourses of power are used in all societies to *marginalize subordinate groups*. For such discourses of power do not just contribute to the decentring and deconstruction of the self; they also serve to marginalize those people who do not partake in them.").

has also traditionally been suspicious of consolidated power.¹⁸⁴ But at the risk of sounding postmodernist, what is “the establishment”?

From the political right comes a new environmental postmodernism: a challenge to what has become a mainstream establishment of climate scientists. While a vast majority of scientific researchers have coalesced around a belief that climate change represents a very serious risk, an agitating minority of climate skeptics claim that the mainstream science is wrong, manipulated, and a power play to seize the reins of power by invoking the emergency of climate change.¹⁸⁵

Why should we be surprised? Environmental postmodernists have argued that science has always been a social construct, and if it is a social construct incapable of stable, objective meaning, then it is susceptible of hijacking. This climate skeptic postmodernism comes not only from a small, but vocal group of climate researchers, but also skeptical laypersons unafraid to weigh in on matters in which they have an expertise disadvantage. Climate postmodernists have attempted to counter their expertise disadvantage the same way that postmodernists and environmental postmodernists have in the past: They have tried to change the subject. When confronted with authority, postmodernists will always question authority’s objectivity, thereby challenging its legitimacy. It does not hurt that climate postmodernists enjoy financial backing from the Koch brothers,¹⁸⁶ the fourth-richest individuals in the United States.¹⁸⁷

It seems safe to say that most climate skeptics would be even less inclined than environmental postmodernists to identify with the anti-establishment, liberal political positions heretofore associated with postmodernism. But a cadre of scientists do see themselves as an oppressed minority in their policy world of interested climate change researchers. Non-scientific climate skeptics have taken up their grievance in earnest. Throughout their calls to question or reject the prevailing climate science, climate skeptics rail against the larger, better-funded, mainstream community of climate scientists who call for policy action to arrest climate

184. See, e.g., OPIE, *supra* note 1, at 426 (discussing the emergence of radical environmental non-governmental organizations); Samuel P. Hays, *From Conservation to Environment Environmental Politics in the United States Since World War II*, in OUT OF THE WOODS: ESSAYS IN ENVIRONMENTAL HISTORY 101, 123 (Char Miller & Hal Rothman eds., 1997) (noting suspicions of governmental initiatives as well as private development).

185. See *infra* notes 192–94 and accompanying text.

186. See, e.g., Jane Mayer, *Koch Pledge Tied to Congressional Climate Inaction*, NEW YORKER (June 30, 2013), <http://www.newyorker.com/online/blogs/newsdesk/2013/07/the-kochs-and-the-action-on-global-warming.html>; see also *supra* note 10.

187. *Forbes 400 The Richest People in America 2014*, FORBES, <http://www.forbes.com/forbes-400/> (last updated Sept. 29, 2014).

change. The climate skeptic community has done so in ways and with rhetoric that sounds surprisingly like the environmental postmodernists who oppose CBA and harbor doubts about the soundness of policy-relevant science, and generally have the opposite set of worries of climate skeptics and the Koch brothers.

1. Funding Climate Science to Bend It

A common complaint levied by climate skeptics is that mainstream climate scientists have rigged the federal grant-making process to direct research funds only to like-minded researchers. According to climate skeptics, climate science has become dogmatic, so that what is considered credible enough for research funds is defined by what the mainstream climate scientists themselves define as being “credible.” The awarding of research funds inherently requires some gatekeeping, lest scarce federal research dollars be wasted. Climate skeptics assert that this gatekeeping function has been captured.

Importantly, climate skeptics do not necessarily claim that it is ideology *per se* that motivates mainstream climate scientists. According to climate skeptics, it is power, and the concomitant flow of money, that is supposedly sought. By trumpeting the dire risks of climate change, climate scientists are, in the climate skeptic story, alarming politicians and the general public into devoting more dollars to climate research.¹⁸⁸

Roy Spencer, an atmospheric sciences professor at the University of Alabama at Huntsville and a climate researcher and skeptic, writes in his blog *Global Warming*:

But what DOES exist is a large organization that has a virtual monopoly on global warming research in the U.S., and that has a vested interest in AGW [anthropogenic global warming] theory being true: the U.S. Government. The idea that government-funded climate research is unbiased is laughable. The push for ever increasing levels of government regulation and legislation, the desire of government managers to grow their programs, the dependence of congressional funding of a problem on the

188. Richard S. Lindzen, *Global Warming: The Origin and Nature of the Alleged Scientific Consensus*, REGULATION, Spring 1992, at 87, 91 [hereinafter Lindzen, *Global Warming*] (“Those lobbying groups have budgets of several hundred million dollars and employ about 50,000 people; their support is highly valued by many political figures. As with any large groups, self-perpetuation becomes a crucial concern. “Global warming” has become one of the major battle cries in their fundraising efforts. At the same time, the media unquestioningly accept the pronouncements of those groups as objective truth.”).

existence of a “problem” to begin with, and the U.N.’s desire to find reasons to move toward global governance, all lead to inherent bias in climate research.¹⁸⁹

This climate skeptic complaint is that a problem has been concocted so climate scientists can, with the assistance of funding, undertake a massive taxpayer-funded research effort under the guise of rescuing us from our folly. Climate scientists are not any more immune from funding problems than Descartes, about which Lyotard remarked: “[n]o money, no proof—and that means no verification of statements and no truth.”¹⁹⁰ This is the same complaint from climate skeptic Richard Lindzen, who writes:

Even in the 19th Century, most scientists needed institutional homes, and today science almost inevitably requires outside funding. In some fields, including climate, the government has essentially a monopoly on such funding.¹⁹¹

Under the postmodern complaint propounded by climate skeptics then, climate science is just another device for obtaining funding. This would not be possible without the creation of some source of authority, which climate scientists have created with their esoteric (but sprawling) research into the science of climate change.

2. Climate Scientists Wielding Power

As noted above, environmental postmodernists have argued that scientists draw boundaries. Scientists doing policy-relevant research draw boundaries to legitimize their own science and to discredit science reaching contrary conclusions, and they are not shy about using the peer review process for those purposes. This complaint is almost perfectly mirrored by climate skeptics: their most consistent complaint is that mainstream climate scientists have ruthlessly drawn boundaries and excluded dissenters. Patrick Michaels, a climate skeptic, has argued:

The result of all this is that our refereed literature has been inestimably damaged, and reputations have been trashed. Mr. Wigley repeatedly tells news reporters not to listen to “skeptics”

189. Roy W. Spencer, *Why Most Published Research Findings Are False*, GLOBAL WARMING (Jan. 3, 2011), <http://www.drroyspencer.com/2011/01/why-most-published-research-findings-are-false/>.

190. LYOTARD, *supra* note 18, at 44–45.

191. Richard S. Lindzen, *Science in the Public Square: Global Climate Alarmism and Historical Precedents*, 18 J. AM. PHYSICIANS & SURGEONS 70, 70 (2013) [hereinafter Lindzen, *Public Square*].

(or even nonskeptics like me), because they didn't publish enough in the peer-reviewed literature—even as he and his friends sought to make it difficult or impossible to do so.¹⁹²

Richard Lindzen has written:

Although there are many reasons why some scientists might want to bring their field into the public square, the cases described here appear, instead, to be cases in which those with political agendas found it useful to employ science. This immediately involves a distortion of science at a very basic level: namely, science becomes a source of authority rather than a mode of inquiry. The real utility of science stems from the latter; the political utility stems from the former.¹⁹³

This passage could have been written by Lyotard himself, so perfect is the parallelism between Lyotard's skepticism and Lindzen's cynicism. At the core of both complaints is the underlying premise that there is no inherent utility to the scientific endeavor, only the seeking of artificially-created rents.

Ross McKittrick, a Canadian economist who has devoted a large part of his scholarly output to casting doubt on climate change, has also remarked on what he perceives as the dual practices of censoring by peer review and intimidation by editorial fiat:

In the end, the paper was accepted for publication, but not in a climatology journal. Fortunately for me, I am an economist, not a climatologist, and my career doesn't depend on getting published in climatology journals. If I were a young climatologist, I would have learned that my career prospects would be much better if I never wrote papers that question the IPCC. The skewing of the literature (and careers) can only be bad for society, which depends on scientists and the scientific literature for trustworthy advice for wise policy decisions.¹⁹⁴

192. Patrick J. Michaels, *How to Manufacture a Climate Consensus The East Anglia Emails Are Just The Tip of The Iceberg. I Should Know*, WALL ST. J. (Dec. 17, 2009, 10:45 PM), <http://online.wsj.com/news/articles/SB10001424052748704398304574598230426037244>.

193. Lindzen, *Public Square*, *supra* note 191, at 70.

194. Ross McKittrick, *Bias in the Peer Review Process A Cautionary and Personal Account*, in CLIMATE COUP: GLOBAL WARMING'S INVASION OF OUR GOVERNMENT AND OUR LIVES 69, 71 (Patrick J. Michaels ed., 2011).

No institution has been the target of more accusations than the Intergovernmental Panel on Climate Change (IPCC). Formed by the United Nations to periodically assemble hundreds of the most active and prominent climate researchers in the world, the IPCC produces a report every few years that reviews and synthesizes the literature on the science and policy of climate change.¹⁹⁵ A gatekeeping function is thus implicit in the IPCC's function. Synthesizing literature implicitly requires judgment, which requires accepting some research and rejecting other research.

Consistent with a postmodern view, the IPCC is thus very much a social and political body. Although scientific judgments should form the bedrock criteria for developing a literature review, some subjectivity must unavoidably creep in. To preserve its authority, the IPCC has strived to create the appearance of objectivity. It has included climate skeptics in its worldwide body of climate scientists that prepare its periodical reports, including Richard Lindzen, one of the most vituperative critics of climate science.¹⁹⁶ Despite these efforts, climate skeptics remain highly critical of the IPCC. John Christy, a colleague of Roy Spencer at the University of Alabama at Huntsville and another dissenting climate scientist, has written:

Selected lead authors have the last word in the review cycle and so control the message, often ignoring or marginalizing dissenting comments. 'Consensus' and manufactured-confidence ensued.¹⁹⁷

Spencer himself has echoed that complaint:

[The IPCC] is primarily a political advocacy group that cloaks itself in the aura of scientific respectability while it cherry-picks the science that best supports its desired policy outcomes, and

195. *Reports*, IPCC, http://www.ipcc.ch/publications_and_data/publications_and_data_reports.shtml (last visited Nov 23, 2014); *see also Organization*, IPCC, <http://www.ipcc.ch/organization/organization.shtml> (last visited Nov. 23, 2014).

196. *See, e.g.*, Lindzen, *Global Warming*, *supra* note 188, at 91 ("Despite the fact that those remarks were virtually meaningless, they led the environmental advocacy movement to adopt the issue immediately."); Marc Morano, *MIT Climate Scientist Dr. Richard Lindzen Rips UN IPCC Report*, CLIMATE DEPOT (Sept. 28, 2013), <http://www.climatedepot.com/2013/09/28/mit-climate-scientist-dr-richard-lindzen-rips-un-ipcc-report-the-latest-ipcc-report-has-truly-sunk-to-level-of-hilarious-incoherence-it-is-quite-amazing-to-see-the-contortions-the-ipcc-has/> ("I think that the latest IPCC report has truly sunk to level of hilarious incoherence.").

197. John R. Christy, *IPCC Cherish It, Tweak It, or Scrap It?* 463 NATURE 730, 732 (2010).

marginalizes or ignores science that might contradict the party line.¹⁹⁸

In 2011, the United States House of Representatives voted to deny funding to the IPCC for preparation of its climate reports.¹⁹⁹ We should not be surprised that criticism of the IPCC rises monotonically with its influence. And we should not be surprised that attempts by the IPCC to answer criticism are Sisyphean: The harder it tries to appear objective, the greater its authority, and hence the greater the postmodern objection. It is no doubt true that the IPCC indirectly, but palpably, influences funding decisions. The ingredients for a postmodern objection are present: authority based on the pretense of objectivity in science, boundary-drawing, and raw bullying. Are these not the ingredients of postmodernism?

One might engage in a thought experiment of imagining a legion of French researchers investigating the nature of sexual preferences in the 1940s and 1950s. What would their reception in the French academy look like? Would their articles be marginalized in the way that climate skeptics say theirs have been marginalized? The merits of the objection are beside the point. Regardless of the merits of climate science and climate skepticism, I argue in this Article that there is a power relationship and a power dynamic that would look very familiar to a postmodernist.

3. Climate Science as a Social Construct

Perhaps most fundamentally, a strain of climate skepticism has reached into a more philosophical realm to express doubt about the innate knowability of climate science. Just as Sheila Jasanoff has argued that science is a social construction,²⁰⁰ climate skeptics have argued that climate science is inherently a social construction, and only illusory in its stated transcendence of petty politics and lesser forms of knowledge. Some climate skeptics have very consciously raised postmodernist objections in urging skepticism towards climate science. David Demeritt, a geography professor, has even invoked postmodernists, such as Baudrillard, in attempting to strip climate science of its authority:

198. ROY W. SPENCER, *THE GREAT GLOBAL WARMING BLUNDER: HOW MOTHER NATURE FOOLED THE WORLD'S TOP CLIMATE SCIENTISTS*, at xiv (2012).

199. H.R. 680, 112th Cong. § 4042 (2011), *available at* <http://www.gpo.gov/fdsys/pkg/BILLS-112hr680ih/pdf/BILLS-112hr680ih.pdf>; 157 CONG. REC. H1202 (daily ed. Feb. 18, 2011) (“The House passed H.R. 1, making appropriations for the Department of Defense and the other departments and agencies of the Government for the fiscal year ending September 30, 2011, by a yea-and-nay vote of 235 yeas to 189 nays, Roll No. 147.”).

200. *See supra* notes 101–02 and accompanying text.

Impressed by science's spectacular capacity to represent, simulate, and construct nature through such practices as computer modeling and genetic engineering, some social constructionists, following Baudrillard (1983), have posited the total eclipse of the real and the natural by the virtual and artificial within a new, hyper-real society of the simulacra By unmasking the heterogeneous and contingent social relations involved in the practice of science, this form of social construction is directed against "certain pictures of reality, truth, discovery, and necessity" and the scientific "ideology of . . . pious reverence" for science these metaphysics produce.²⁰¹

The most fundamental argument that climate skeptics make is the deepest one: Climate science is subject to an innate unknowability—a known unknown, to borrow from the former Defense Secretary²⁰²—such that attempts to make the science more objective are inherently doomed to fail:

In all of human history, what was believed and promoted by the majority of service intellectuals (high priests) in each civilization was only created and maintained to support the hierarchy and the place of the high priests within the hierarchy. To believe that the present is any different regarding any issue managed by our "experts", whether in medicine, psychology, cosmology, economics, law and governance, population health or ecology, is pure distilled idiocy.²⁰³

Also reminiscent of postmodernist objection is climate skeptics' warning that this power-grab is not just about the funding itself, or an attempt to capture a limited research budget. An element of the climate skeptic argument is that climate change is a veiled attempt to impose a *broad*er menu of environmental restrictions that would not have been politically palatable otherwise. Climate skeptics have often called climate change a "Trojan horse" in which a broader "socialist" agenda is to be

201. David Demeritt, *The Construction of Global Warming and the Politics of Science*, 91 ANNALS ASS'N AM. GEOGRAPHERS 307, 310 (2001) (quoting IAN HACKING, *THE SOCIAL CONSTRUCTION OF WHAT?* 60, 62 (1999)).

202. *DoD News Briefing—Secretary Rumsfeld and Gen. Myers*, U.S. DEP'T OF DEF. (Feb. 12, 2002, 11:30 AM), <http://www.defense.gov/transcripts/transcript.aspx?transcriptid=2636> ("[T]here are known knowns; there are things we know we know. We also know there are known unknowns; that is to say we know there are some things we do not know. But there are also unknown unknowns—the ones we don't know we don't know.").

203. Denis G. Rancourt, *On the Gargantuan Lie of Climate Change Science*, ACTIVIST TEACHER (Mar. 21, 2011, 9:15 PM), <http://activistteacher.blogspot.com/2011/03/on-gargantuan-lie-of-climate-change.html>.

smuggled into a freedom-loving society.²⁰⁴ It is reminiscent of Lisa Heinzerling's argument that the Trojan horse of CBA is the vehicle in which a political deregulatory agenda is being smuggled into the debate about environmental protection.²⁰⁵

Climate skeptics, generally propounding an agenda of low energy prices and pro-business governmental policy, are odd bedfellows indeed with not only French, structural postmodernists, but also the more modern and sophisticated environmental postmodernists. But recall Lyotard's description of postmodernism: "as incredulity towards metanarratives."²⁰⁶ Suspicion, the most reliable characteristic of postmodernists, provides the link between the environmental postmodernists and their Koch-funded adversaries on the other side of the environmental divide.

III. THE POSTMODERNIST CONDITION IN ENVIRONMENTAL LAW

Environmental issues are uniquely frustrating from an epistemological point of view. Uncertainty is ubiquitous. Environmental issues are uniquely indeterminate because so many scientific questions are deeply intertwined with social and ethical issues, further complicating decision making and planning. Even on the single dimension of uncertainty, environmental problems run a particularly large spectrum. Climate change takes up a position at the far end of that spectrum.

Pervasive scientific uncertainty, combined with the entanglement of social and ethical issues, produce confusion and discord, and create conditions for the emergence of the kinds of people and organizations that the post-structuralist postmodernists warned us about: information entrepreneurs satisfying a public craving for authority by projecting expertise and objectivity. The esoteric nature of environmental issues

204. See, e.g., Jonathan Marshall, *Carbon Taxes: Climate Savior or Trojan Horse?*, PG&E CURRENTS: NEWS & PERSP. FROM PACIFIC GAS & ELEC. CO. (Sept. 3, 2013), <http://www.pgecurrents.com/2013/09/03/carbon-taxes-climate-savior-or-trojan-horse/> ("Many conservatives, who once supported pollution taxes as an efficient alternative to traditional regulations, today either question the science of climate change or fear that carbon taxes are a Trojan Horse to expand the size of the federal government."); Naomi Klein, *Capitalism vs. the Climate*, THE NATION (Nov. 9, 2011), <http://www.thenation.com/article/164497/capitalism-vs-climate> (describing a comment at a Heartland Institute function: "[h]is question for the panelists, gathered in a Washington, DC, Marriott Hotel in late June, is this: 'To what extent is this entire movement simply a green Trojan horse, whose belly is full with red Marxist socioeconomic doctrine?'"). Australian government officials have criticized the movement to control greenhouse gas emissions as "socialism masquerading as environmentalism." Greg Sheridan, *Climate Tax, Aid and Fees Off Table as Cabinet Toughens Stance*, THE AUSTRALIAN (Nov. 11, 2013), <http://www.theaustralian.com.au/national-affairs/climate/climate-tax-aid-and-fees-off-table-as-cabinet-toughens-stance/story-e6frg6xf-1226756955449>.

205. See *supra* note 49.

206. See *supra* note 18.

exacerbates this postmodernist dynamic by creating vast differences among individuals in their sophistication and their ability to evaluate the veracity of environmental information. Where information asymmetries exist, people with more information have power, and power will find money, or better yet, more power. The stakes of environmental conflict can be enormous—trillions of dollars in the case of climate change²⁰⁷—so that private interests have strong incentives to deploy skillful information entrepreneurs.

But where does that leave us? If the thrust of environmental postmodernism is to reject the economically-motivated reform efforts and to cast a skeptical eye towards policy-relevant science, then what is the way forward? Can environmental postmodernists suggest an alternative?

A. The Postmodernist Problem with Environmental Postmodernism

It would be unfair to say that environmental postmodernists have never proposed any alternatives to skepticism, a critique that has been devastating to post-structuralist postmodernism. The problem is that environmental postmodernists have done exactly what they accuse their nemeses of doing: trying to grab power. That this occurs unwittingly is perhaps the cleverest contribution of postmodernism.

Amy Sinden has argued for a framework based on power imbalances to inform environmental law- and policy-making. Her article *In Defense of Absolutes*²⁰⁸ draws on Ronald Dworkin's work on "trumps" as the basis for arguing for the use of absolute environmental rights to counter a fundamental political power imbalance.²⁰⁹ Analogizing from constitutional rights that trump other policy priorities, Sinden uses the seemingly inflexible mandates of the Endangered Species Act (ESA) to illustrate what she means by absolute rights.²¹⁰ The ESA also provides examples of large political power imbalances, and Sinden argues that this is an application of her principle of empowering a historically weak interest: the environment.²¹¹ Similarly, in *Climate Change and Human Rights*,²¹²

207. Damage estimates are of course controversial, but a study by the Stockholm Environment Institute estimates the damage to oceans alone will be about \$2 trillion per year by 2100. STOCKHOLM ENV'T INST., VALUING THE OCEAN: DRAFT EXECUTIVE SUMMARY 9 (2012), available at <http://www.sei-international.org/mediamanager/documents/Publications/SEI-Preview-ValuingTheOcean-DraftExecutiveSummary.pdf>.

208. Sinden, *In Defense of Absolutes*, *supra* note 62.

209. *Id.* at 1470–72.

210. *Id.* at 1412–13.

211. *See id.* at 1507–11 ("If the problem is power imbalance, then maybe an absolute standard that privileges environmental protection over all else—that deems economic costs irrelevant and

Professor Sinden laments a power imbalance that on her account, contributes to potentially disastrous inaction on climate change. Sinden's prescription is for a discourse more centered upon human rights than economic efficiency.²¹³ Sinden's analogy between the harms to human civilizations large and small, with other, better-recognized violations of basic human dignities, finds some support in the existence of two actual cases involving harms from climate change.²¹⁴

Lisa Heinzerling argues that debates over environmental issues are obscured by the use of CBA and the indulgence of economic analyses.²¹⁵ Recall that her objection to CBA and like economic analyses is the false objectivity insinuated by dollars and cents.²¹⁶ But her prescription is to keep environmental discourse focused on "values," lest it be waylaid by the siren song of numerical precision and objectivity.²¹⁷

But the same criticisms made by Sinden and Heinzerling can be leveled at their own proposals. Without acknowledging the epistemological tradeoffs, Sinden, Heinzerling, and environmental postmodernists argue for a deontological approach, and argue that it will produce better outcomes. Without becoming mired in the endless debate over whether society is truly better off by focusing on certain environmental outcomes or numerical indices, the more interesting question is this: Are the environmental postmodernists doing anything different from the economists they criticize?

Consider Sinden's proposal to vest environmental interests with "absolute" rights under the ESA. I do not quarrel with Sinden on the importance of the ESA. Nor do I quarrel with her thesis that predictable political failures warrant strong provisions, such as those in the ESA (although substantial literature shows how absolute provisions in the ESA are administratively evaded²¹⁸). But how is such a thesis to be made into generally applicable policy, or even a guiding principle for environmental law? What rights ought to qualify as "absolute"? Taking just one of the

requires environmental interests to prevail except in extraordinary circumstances—is just the kind of thumb on the scale that is needed.”).

212. Amy Sinden, *Climate Change and Human Rights*, 27 J. LAND RESOURCES & ENVTL. L. 255 (2007) [hereinafter Sinden, *Climate Change*].

213. *Id.* at 257–58.

214. *See id.* at 258 (citing a case filed by the Inuit people against the United States in the Inter-American Commission on Human Rights and a lawsuit in a Nigerian court on flaring against Shell Oil).

215. Heinzerling, *Regulatory Costs of Mythic Proportions*, *supra* note 49, at 2068.

216. *Id.* at 2068, 2070.

217. *Id.* at 2064–65.

218. *See, e.g.*, J.B. Ruhl, *While the Cat's Asleep The Making of the "New" ESA*, 12 NAT. RESOURCES & ENV'T 187 (1998); Shi-Ling Hsu, *A Game-theoretic Approach to Regulatory Negotiation and an Empirical Framework for Analysis*, 26 HARV. ENVTL. L. REV. 33 (2002); David A. Dana, *The New "Contractarian" Paradigm in Environmental Law*, 2000 U. ILL. L. REV. 35, 39 (2000).

more obvious problems with an absolutist approach, what happens when there are environmental interests on both sides of a question? In light of the seriousness of climate change, should renewable energy sources be privileged in violating the ESA and other wildlife statutes?²¹⁹

These are dauntingly complex questions. Is it an accident that making these kinds of determinations is intractable in a way that would inevitably draw in environmental lawyers? Who would be equipped to weigh in on determinations of what is “absolute,” an “environmental interest,” or a “human right”? An argument that appears to have self-preservation as its purpose need not be conscious rent-seeking; specialized professional training in a particular field or way of thinking inevitably imbues the professional with a heightened appreciation of her field and a relative lack of appreciation for alternative ways of thinking. But if economics is indeterminate and incoherent, what is one to do with the human rights focus that environmental postmodernists have given us?

The point of this exercise is not to expose environmental postmodern approaches as folly. There is much to agree with them. The point is to bring to the fore assumptions underlying the environmental postmodernist arguments and illustrate how they fail to grapple with the fundamental epistemological differences between reformers and environmental postmodernists. Environmental postmodernists are offering a different kind of information and a different way of *knowing*. But it is as presumptuous to privilege the postmodernists’ way of knowing as it is to make CBA a privileged science. Environmental postmodernists argue that CBA *has* become privileged and seek to dislodge it from its mantle. But they seek to replace it with an approach which is equally indeterminate and, coincidentally, one in which they have the unique skills to drive decision making.

At bottom, the flaw with environmental postmodernists’ objection to CBA is, in a sense, hypocritical: It implicitly presumes a discourse that is, in their view, superior to CBA. That is the very objection that environmental postmodernists levy against economists and CBA. Settling this disagreement cannot be accomplished by resorting to logic. That would privilege logic over CBA and other approaches. Environmental postmodernists do not offer a principled way to determine whether CBA does a better job of promoting environmental protection, or even economic efficiency, than their proffered alternatives.

219. For example, promotion of wind energy has some environmental organizations concerned because of the potential for wind turbines to kill birds. Dan Frosch, *A Struggle to Balance Wind Energy With Wildlife*, N.Y. TIMES (Dec. 16, 2013), <http://www.nytimes.com/2013/12/17/science/earth/a-struggle-to-balance-wind-energy-with-wildlife.html>.

B. The Relativity of Wrong

Postmodernism has also historically stumbled by failing to distinguish from among levels of correctness or incorrectness. For postmodernists, it seems, if truth cannot be absolute, then it can be nothing except a means for a power grab.²²⁰ But even casual consumers of science can appreciate that some physical laws can be more right than others. Science fiction writer Isaac Asimov once wrote of this “relativity of wrong[ness]”:

[W]hen people thought the Earth was flat, they were wrong.
When people thought the Earth was spherical, they were wrong.
But if *you* think that thinking the Earth is spherical is *just as wrong* as thinking the Earth is flat, then your view is *wronger* than both of them put together.²²¹

The nature of progress in physical, life, and social sciences is such that we tolerate imperfect states of knowledge as necessary in order to have progress. Moving the goalposts is thus part of the game, as any research, discourse, and progress must take place in a context where there is a conventional truth worth challenging and, eventually, rejecting. The nature of progress is the accumulation of these rejected theories that narrow the inquiry to increasingly more likely or more powerful explanations.²²² Where postmodernists have fallen down is in their insistence that everything with a grain of untruth be swept into the bloated category of “wrong.”

This postmodernist slippery slope intolerance is most marked among climate skeptics. For some in this community, climate science is just too arbitrary and constructed to be considered “science.”²²³ Fundamentally, it is

220. See, e.g., SLINGERLAND, *supra* note 40, at 99–100 (discussing the paradox for the postmodernist that is hard facts); BUTLER, *supra* note 20, at 56 (“What postmodern theory helps us to see is that we are all constituted in a broad range of subject positions, through which we move with more or less ease, so that all of us are combinations of class, race, ethnic, regional, generational, sexual, and gender positions.”).

221. ISAAC ASIMOV, THE RELATIVITY OF WRONG (1988), available at http://hermiene.net/essays-trans/relativity_of_wrong.html.

222. As Michael Shermer explains, Asimov’s view is that science is both “cumulative and progressive.” Michael Shermer, *Wronger Than Wrong*, SCI. AM., Nov. 2006, at 40, 40. Even if we are always in some sense, “wrong,” progress is the attenuation of our wrongness by rejecting imprecise theories in favor of more precise ones. *Id.* But see, Kuhn, *supra* note 179, at 8 (arguing that governing paradigms are social constructions, and that a paradigm shift only occurs when a new theory becomes accepted by a sufficient fraction of the governing community). Not surprisingly, postmodernist scholar Richard Rorty has called Kuhn’s book “the most influential English-language philosophy book of the last half-century.” Richard Rorty, *Untruth and Consequences*, NEW REPUBLIC, July 31, 1995, at 32, 33.

223. See *supra* notes 201–03 and accompanying text.

difficult to dispose of the uncontroversial fact that the Earth as a system is retaining more solar energy.²²⁴ Even with near-unanimity among climate scientists that climate change poses present and future risks ranging from damaging to catastrophic change,²²⁵ climate skeptics insist that climate science is just plain garbage.²²⁶ This is the rebirth of the postmodernist proclivity to point to a few imprecisions as reason to doubt the knowability of anything.

C. Environmental Postmodernism Reformed?

Even if postmodernism fails to provide guidance for solving environmental problems, it flags a disturbing tendency. Uncertainty and discord create difficult and complex decisions, and the resulting temptation is to avoid a straight-on political resolution by seeking out an umpire. The intractability of environmental problems cries out for some way of refereeing our deep-seated differences. But postmodernist or not, there is something troublingly convenient about delegating a difficult and important decision to *others*—economists or scientists, or a process or institution that claims expertise or objectivity, or both. It is as if exasperation with our inability to settle disagreements creates a vacuum of authority that, at least under the postmodernist account, invites abuse of power.

If postmodernism is to be useful at all, its essential skepticism must be harnessed so that its logical endpoint is something other than an utterly helpless nihilism. Is there ever an alternative to just accepting that some disagreements can never be settled? Most postmodernists would probably say yes, but then be confounded by their reflexive skepticism toward any affirmative proposal on the grounds that it is a hidden power grab.²²⁷ Postmodernism has clashed with physics, psychology, biology, legal positivism, climate science, and a wide variety of other metanarratives. Indeed, any singular substantive approach must have a theory, a theory

224. James Hansen et al., *Assessing “Dangerous Climate Change” Required Reduction of Carbon Emissions to Protect Young People, Future Generations, and Nature*, PLOS ONE, Dec. 2013, at 2–4, available at <http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0081648>.

225. William R.L. Anderegg et al., *Expert Credibility in Climate Change*, 107 PROC. NAT’L. ACAD. SCI. 12107, 12107 (2010); Peter T. Doran & Maggie K. Zimmerman, *Examining the Scientific Consensus on Climate Change*, 90 EOS 22, 22–23 (2009); Naomi Oreskes, *Beyond the Ivory Tower: The Scientific Consensus on Climate Change*, 306 SCIENCE 1686, 1686 (2004).

226. See, e.g., *supra* notes 198–204 and accompanying text.

227. ROSENAU, *supra* note 25, at 131 (quoting Robert Cooper & Gibson Burrell, *Modernism, Postmodernism and Organizational Analysis: An Introduction*, 9 ORG. STUD. 91, 110 (1988)) (“Reason and rationality are presumed to disguise power relations in the field of planning and organization studies. Post-modernism ‘reveals formal organization to be the ever-present expression of an autonomous power that masquerades as the supposedly rational constructions of modern institutions.’”).

requires a metanarrative and a discipline, and a discipline requires esoteric knowledge; along with esoteric knowledge comes power. Could postmodernists ever be *for* anything?

There is at least one class of policy measures that postmodernists could in principle support, and environmental postmodernism may provide a clue. Some environmental postmodernists have proposed measures to increase the *transparency* of environmental decision making.²²⁸ Measures to broaden process inputs and increase transparency are the only kinds of affirmative measures that a postmodernist could *ever* coherently favor. The fundamental postmodern complaint is, after all, about the sly consolidation of power. If a measure could only broaden access to information, then it would tend to be power dissipating, rather than power consolidating. In fact, taking post-structuralist postmodernism to its logical conclusion—that there is no singular, correct, universal truth—the only permissible way of deciding anything is to maximize the amount of public participation and make publicly available all of the information available about a decision. Transparency makes things like crowdsourcing possible, and this kind of referendum by public access to information is the only possible way forward for a postmodernist.

Along those lines, environmental postmodernists have put forward suggestions. Lisa Heinzerling, as one of three editors of a volume of essays, *Reforming Regulatory Impact Analysis*,²²⁹ endorsed a number of recommended changes to CBA practice in regulatory impact analyses, including: analysis of meaningful alternatives;²³⁰ adherence to a “checklist” of good practices;²³¹ comprehensibility to lay audiences, including the adoption of “plain English” standards;²³² a statement of consequences of agency actions;²³³ equal application of CBA to deregulation as well as regulation decisions;²³⁴ and consideration of distributional consequences.²³⁵ This is Heinzerling in her less postmodernist mode, consorting with a body of economists very closely tied to CBAs—the widely respected think tank Resources for the Future. This is also environmental postmodernism tapping into one of the environmental movement’s best policy ideas:

228. Harrington, Heinzerling & Morgenstern, *supra* note 103, at 221.

229. *Id.*

230. *Id.* at 221–22.

231. *Id.* at 223.

232. *Id.* at 226–27.

233. *Id.* at 225.

234. *Id.* at 230–31.

235. *Id.* at 232.

opening up government decision making to public scrutiny.²³⁶ The National Environmental Policy Act,²³⁷ which ushered in a worldwide wave of environmental assessment legislation,²³⁸ requires nothing substantive, but does require an environmental impact statement that sets out the environmental consequences of a federal decision.²³⁹ Public participation has always been a hallmark of the environmental movement.²⁴⁰

McGarity and Wagner suggest some ways to improve legal engagement with science. For example, they propose a mandatory conflict disclosure for scientific information or critiques that are submitted to courts and regulators.²⁴¹ Such disclosures would detail the influence that sponsors had on the study.²⁴² Conflict of interest disclosures have become commonplace in a growing number of contexts,²⁴³ so it does not seem unreasonable or overly burdensome to require them whenever scientific information has the potential to influence regulators or courts. McGarity and Wagner also propose data-sharing requirements for scientific research that serve as an input to policy-making or court decisions, even when they are privately funded.²⁴⁴ Since the universality of science is based in large part on its replicability, requiring data access would not be particularly intrusive. In CBA, there is clearly room for improvement. Environmental postmodernists would do well to push for them, particularly those oriented towards greater transparency, such as plain English requirements.

Climate change excites strong emotions, and hearing out climate skeptics that have carried out scurrilous attacks might be painful. Judith Curry is an atmospheric scientist whose work on hurricanes and climate change²⁴⁵ is respected by mainstream climate scientists, and who is also

236. See National Environmental Policy Act, 42 U.S.C. § 4332 (1970) (establishing that federal agencies shall prepare an environmental impact statement for all proposed “major Federal actions significantly affecting the quality of the human environment” and make the statement available to the public).

237. *Id.* §§ 4321–47.

238. ROBERT PERCIVAL ET AL., ENVIRONMENTAL REGULATION 857 (6th ed. 2009) (noting that following passage of the National Environmental Policy Act, over 80 countries have adopted similar legislation).

239. *Id.* at 858–59.

240. See HAYS, A HISTORY, *supra* note 45, at 194 (“If there was any one effort that ran through organized environmental affairs, it was the drive to persuade more people to become a part of the citizen environmental ‘movement.’”).

241. MCGARITY & WAGNER, *supra* note 132, at 236.

242. *Id.* at 237.

243. *Id.* In fact, McGarity and Wagner propose that universities require conflict of interest disclosures, something that most major research universities already do. *Id.*

244. *Id.* at 244.

245. See, e.g., Peter J. Webster, G. J. Holland, Judith A. Curry & Hai-Ru Chang, *Changes in Tropical Cyclone Number, Duration and Intensity in a Warming Environment*, 309 SCIENCE 1844, 1844

praised by climate skeptics for her willingness to engage with their skepticism.²⁴⁶ Curry concedes that among climate skeptics there is “a lot of crankology out there.”²⁴⁷ But scattered amongst the vast detritus of climate crankology are nuggets of legitimate suggestions. Economist and climate skeptic Ross McKittrick has written a paper suggesting a carbon tax that is indexed to the global mean temperature.²⁴⁸ If the global mean temperature rises, then the carbon tax would go up, the idea being that nature is the “referee” of the climate debate.²⁴⁹ The IPCC (of which Curry is quite critical²⁵⁰) has been the target of much criticism, but also suggested reforms. Some have suggested embedding certain non-scientists into the IPCC evaluation process, including journalists,²⁵¹ mathematicians, statisticians, and others.²⁵² McKittrick has suggested IPCC reforms that smack of environmental postmodernism: create a more open process for selecting lead authors²⁵³ (who necessarily wield a considerable amount of editorial power), diversify the range of disciplines so that more than just climate scientists are involved,²⁵⁴ and create a more transparent contributing author process.²⁵⁵ By themselves, it is hard to see why these reforms would be controversial.

The postmodern condition in environmental law is rooted in skepticism. In some part, increasingly partisan politics plays a role in the disintegration of trust in environmental policy. If postmodernism is to have a function, it is to challenge the universality of metanarratives. The role of environmental postmodernism is to challenge the universality of asserted premises that are influencing the development of environmental law. But

(Sept. 16, 2005); Judith A. Curry et al., *Mixing Politics and Science in Testing the Hypothesis that Greenhouse Warming is Causing a Global Increase in Hurricane Intensity*, 87 BULL. AM. METEOROLOGICAL SOC'Y 1025, 1032 (2006).

246. Michael D. Lemonick, *Climate Heretic Judith Curry Turns on Her Colleagues*, SCI. AM., Nov. 2010, available at <http://www.scientificamerican.com/article.cfm?id=climate-heretic>.

247. *Id.*

248. Ross McKittrick, *A Simple State-Contingent Pricing Rule for Complex Intertemporal Externalities*, 33 ENERGY ECON. 111, 118–19 (2011). This idea has served as the inspiration for my own work on the idea of prediction markets for climate outcomes. See Shi-Ling Hsu, *A Prediction Market for Climate Outcomes*, 83 U. COLO. L. REV. 179 (2011).

249. John Tierney, *Trusting Nature as the Climate Referee*, N.Y. TIMES (Dec. 14, 2009), <http://www.nytimes.com/2009/12/15/science/15tier.html>.

250. Lemonick, *supra* note 244.

251. See David Adam & Suzanne Goldberg, *How to Reform the IPCC*, THE GUARDIAN (Feb. 10, 2010), available at <http://environmentalresearchweb.org/cws/article/opinion/41760>.

252. See ROSS MCKITTRICK, GLOBAL WARMING POLICY FOUND., WHAT IS WRONG WITH THE IPCC? PROPOSALS FOR A RADICAL REFORM 39 (2011) [hereinafter MCKITTRICK, IPCC].

253. *Id.* at 4.

254. *Id.* at 39.

255. *Id.* at 38.

rather than just agitating, the best way forward for environmental postmodernists is to focus agitation on the one thing that should be non-controversial: the reasonable expansion of process and the increased transparency of decision making.

Lest we forget, today's postmodernism, if successful, can be the target of tomorrow's postmodernist attacks. Postmodernists, of course, have their ideologies; it would be naïve to believe that postmodernists are process-obsessed saints. Among the proposals by McGarity and Wagner to open up policy-relevant science are proposals aimed at the deregulatory ideology they are more afraid of. They propose, for example, that people who lodge misconduct charges against scientists should be required to disclose "*financial or ideological*" interests in the outcome of challenged research.²⁵⁶ Using almost exactly the same words, McKittrick proposes that IPCC lead authors be required to disclose their "intellectual conflicts of interest," meaning their connections to "environmental activist organizations."²⁵⁷ It is not clear if any of the environmental postmodernists actually see that their own proposals might lash back upon the scientists that they support.

CONCLUSION

Environmental law is an area of public policy with ideal conditions for postmodern objection. Uncertainties inherent in environmental issues incubate disagreement. Environmental issues also excite emotions stemming from bitterly competing worldviews of the role of industrial wealth-generation.²⁵⁸ Given the messy, value-laden disagreements that seem to confront antagonists in every environmental conflict, there is a natural temptation to seek out a referee. Referees may hold esoteric information about the environmental issues, and this produces an information asymmetry that produces power.

Postmodernists have seized on this dynamic before but have stumbled. Three principal problems have plagued traditional, twentieth-century, French post-structuralists: They have failed to appreciate the relativity of wrongness; they have failed to comprehend the nature of scientific inquiry; and they have generally failed to articulate a positive vision to accompany

256. MCGARITY & WAGNER, *supra* note 132, at 280.

257. MCKITTRICK, IPCC, *supra* note 252, at 5.

258. See, e.g., Dan M. Kahan, *Ideology, Motivated Reasoning, and Cognitive Reflection: An Experimental Study*, 8 JUDGMENT & DECISION MAKING 407, 407 (2013) (describing how people with different worldviews can vary in their opinions regarding global warming and nuclear waste disposal); Shi-Ling Hsu, *A Conservative Approach to Environmental Law: Be Data-Driven*, 23 DUKE ENVTL. L. & POL'Y F. 281, 281 (2013) (discussing how political self-identification affects views on climate change).

their reflexive skepticism. For these reasons, postmodernism has probably run its course as a coherent body of thought.

And yet, postmodernism did not arise out of nowhere, and environmental postmodernism has clearly caught hold of some serious problems with environmental law- and policy-making. Problems with CBA cry out for greater scrutiny and the use of science in the policy-making process must be better informed, more nuanced, and above all, more skeptical. And although, in this author's view, the vast majority of climate scientists are justified in their conduct of climate science and in their policy prescriptions, there is something unsatisfying about the typical explanation of why the general public has not joined climate scientists in their alarm. It is just too pat to say that climate skepticism is solely the result of merchants of doubt²⁵⁹ and the Koch brothers. Climate skeptics are exploiting a fear, an anxiety, or a discomfort that climate scientists and climate policy advocates have insufficiently addressed. All of these phenomena are metanarratives that require something beyond top-down communication. For any policy issue with large-scale consequences, and for anything that looks like a metanarrative purporting to handily address the issue, some skepticism is warranted. For policy advocates, a plausible ground game is needed to reach a broader constituency than just a group of policy cognoscenti, to avoid even the appearance of a power grab.

Environmental postmodernists have suffered some of the same pitfalls that have befallen their French, post-structuralist forerunners. They have sometimes failed to appreciate that there is a relativity of wrongness and that progress depends on incremental discoveries that do not necessarily deliver certainty. While there have been leaps in knowledge and widespread acceptance, there are no eternal bedrocks of truth, not even in "hard" sciences, such as physics. Newtonian mechanics gave way to Einstein's general theory of relativity,²⁶⁰ which is itself recognized to be incomplete.²⁶¹ But the nature of scientific inquiry is such that advances are not permanent truths, but new reference points for discussion. The environmental postmodernist's mistake is to confuse criticism with

259. NAOMI ORESKES & ERIK CONWAY, *MERCHANTS OF DOUBT, HOW A HANDFUL OF SCIENTISTS OBSCURED THE TRUTH ON ISSUES FROM TOBACCO SMOKE TO GLOBAL WARMING* 222–23, 258–59 (2010).

260. ALBERT EINSTEIN, *RELATIVITY: THE SPECIAL AND GENERAL THEORY* 16–17, 130, 134–36 (Robert W. Lawson trans., 1920).

261. See, e.g., ROGER PENROSE, *THE ROAD TO REALITY: A COMPLETE GUIDE TO THE LAWS OF THE UNIVERSE* 292 (2004) ("Yet [Einstein's] notion of spacetime geometry does require some (local) structure—over and above just that of a smooth manifold."); *id.* at 850 ("But to take this position is to part company with one of the very basic principles of Einstein's theory, namely the *principle of general covariance*.").

refutation. Climate skeptics have lost their tolerance for the back-and-forth that has defined scientific progress for centuries, insisting instead that climate science achieve a level of certainty that is impossible, especially for such a complex undertaking. And when environmental postmodernists raise objections to CBA, they sometimes fail to appreciate that CBA doesn't present a "right" answer, but a new reference point for discussion. The relevant question is whether one approach adds epistemological value or not. For both CBA critics and climate skeptics, a demand for greater precision should be accompanied by a comparison with a proffered alternative, and a demonstration as to why it is a superior approach.

To their credit, environmental postmodernists have sometimes done exactly that. But a trap awaits. When making an affirmative proposal, environmental postmodernists must avoid committing the same sin for which they criticize reformers: trying to steer the terms of debate onto their own turf. This is the case, for example, when CBA is criticized on the grounds that economists don't know how to resolve environmental conflicts, but lawyers do. Responding to a power grab with a power grab-back is not progress.

For a postmodernist, the only principled way forward is to broaden public participation and knowledge. Virtually any substantive proposal will confer power upon some group and will therefore be open to postmodern objection. In such a world, neither economists nor lawyers should get to decide; the only legitimate arbiter is the court of public opinion. What remains is procedural reform that increases public access to the information inputs to environmental decision making. It is possible to craft procedural proposals that are so clearly aimed at expanding process and increasing transparency, and so clearly power-diffusing that only the most crabbed postmodernist would see it as a power grab. In an era of increasing internet access, transparency measures become attainable. Serendipitously, this procedural tack is reminiscent of one of environmentalism's greatest contributions: the introduction of environmental assessment statutes, which have (at least in the United States) imposed minimal substantive obligations but significant procedural obligations.²⁶²

Skepticism is warranted when economists arrive at the doorstep and announce, "we're from the Economics Department, and we're here to help."²⁶³ But if there is something the academy has learned from its

262. See *supra* text accompanying notes 236–40.

263. "We're from the government, and we're here to help," has become a lampoon widely adopted by conservatives for when people feign helpfulness with a hidden purpose of instead exploiting someone. See e.g., Jason Bedrick, "*We're From the Government and We're Here to Help*," *Schoolyard Edition*, CATO LIBERTY (Oct. 11, 2013, 11:16 AM), <http://www.cato.org/blog/were-government-were->

flirtation with postmodernism, it is that skepticism has to be accompanied by something affirmative. What a brief encounter with environmental postmodernism has illustrated is one form of that affirmative way forward: procedural reform. If done with an open mind, it is a way out of the nihilistic dystopia that has always been associated with postmodernism.

here-help-schoolyard-edition (describing unintended consequences of government programs against bullying); Geoffrey Norman, *We're From the Government, and We're Here to Help you Lose Weight*, WEEKLY STANDARD (June 26, 2012, 9:15 AM), http://www.weeklystandard.com/blogs/were-government-and-were-here-help-you-lose-weight_647856.html. The origin of the phrase derives from President Ronald Reagan, who once quipped, "[t]he nine most terrifying words in the English language are: 'I'm from the government and I'm here to help.'" Daniel Kurtzman, *Ronald Reagan Quotes*, ABOUT.COM, <http://politicalhumor.about.com/cs/quotethis/a/reaganquotes.htm> (last visited Nov. 23 2014).